

LLNL Livermore Site Fourth Quarter 2012 Self-Monitoring Report

This quarterly report presents the fourth quarter 2012 self-monitoring data for the ground water and soil vapor treatment facilities at the Lawrence Livermore National Laboratory (LLNL) Livermore Site. The volumes of ground water and soil vapor treated, and volatile organic compound (VOC) mass removed during the fourth quarter of 2012 are presented in Tables 1 and 2, respectively. An historical summary of VOC volume and mass removed are presented in Tables 3 and 4, respectively.

Attachment A presents results of ground water treatment facility and extraction well (ground water and soil vapor) VOC, and chromium analyses (Tables A-1 through A-4). During the fourth quarter of 2012, all effluent sample analytical results were within acceptable discharge limits.

Self-monitoring reports for all treatment facilities are presented in Attachment B. Monthly volumes of ground water extracted are shown in Attachment B; however, instantaneous flow rates are not shown for wells that are now only used for sampling and are not continuously pumped. The monthly volume shown for these wells is the quantity of water evacuated for sampling purposes.

A map showing Livermore Site treatment areas and treatment facility locations, and ground water elevation contour maps showing hydraulic capture zones for hydrostratigraphic units (HSUs) 1B, 2, 3A, 3B, 4, and 5, are presented in Attachment C. The contour maps for the individual HSUs are based on data collected during the fourth quarter of 2012.

Table 1. Volumes of ground water and soil vapor extracted and treated at the Livermore Site, October through December 2012.

Treatment Area^a	Month	Volume of ground water extracted (Kgal)^b	Volume of vapor extracted (Kcf)^b
TFA	October	9,699	-
	November	9,220	-
	December	4,363	-
TFB	October	2,738	-
	November	2,531	-
	December	1,582	-
TFC	October	3,882	-
	November	3,282	-
	December	3,271	-
TFD	October	6,860	0
	November	5,800	0
	December	5,470	1,142
TFE	October	1,824	1,935
	November	1,593	1,705
	December	1,606	1,550
TFG	October	490	-
	November	484	-
	December	455	-
TFH	October	629	2,193
	November	709	1,969
	December	667	1,554
TOTAL^c		67,155	12,048

^a Totals include ground water and soil vapor extracted from the following facilities:

TFA area: TFA, TFA-E

TFB area: TFB

TFC area: TFC, TFC-E, TFC-SE

TFD area: TFD, TFD-E, TFD-HPD, TFD-S, TFD-SE, TFD-SS, TFD-W, VTFD-ETCS, VTFD-HS

TFE area: TFE-E, TFE-HS, TFE-NW, TFE-SE, TFE-SW, TFE-W, VTFE-ELM, VTFE-HS

TFG area: TFG-1, TFG-N

TFH area: TF406, TF406-NW, TF518-N, TF518-PZ, TF5475-1, TF5475-2, TF5475-3, VTF406-HS, VTF511, VTF518-PZ, VTF5475

TFF started operation in February 1993 for fuel hydrocarbon remediation. In August 1995, the regulatory agencies agreed that the vadose zone remediation was complete, and in October 1996 a No Further Action status was granted for the ground water.

^b Totals are derived from individual extraction wells shown in Attachment B.

^c Rounded number.

Kcf = thousands of cubic feet.

Kgal = thousands of gallons.

Table 2. VOC mass removed at the Livermore Site, October through December 2012.

Treatment Area^a	VOC mass removed from ground water (kg)	VOC mass removed from soil vapor (kg)	Total VOC mass removed (kg) ^b
TFA	0.9	-	0.9
TFB	0.6	-	0.6
TFC	1.1	-	1.1
TFD	5.9	0.3	6.2
TFE	1.8	1.2	3.0
TFG	0.1	-	0.1
TFH	0.5	5.1	5.6
TOTAL^b	10.9	6.6	17.5

Table 3. Historical summary of volumes of water and soil vapor removed at the Livermore Site through December 2012.

Treatment Area^a	Volume of ground water extracted (Mgal)	Volume of vapor extracted (Mcf)
TFA	1,958	-
TFB	464	-
TFC	523	-
TFD	1,077	107
TFE	388	176
TFG	87	-
TFH	171	255
TOTAL^b	4,668	538

Table 4. Historical summary of VOC mass removed from water and soil vapor at the Livermore Site through December 2012.

Treatment Area^a	VOC mass removed from ground water (kg)	VOC mass removed from soil vapor (kg)	Total VOC mass removed (kg) ^b
TFA	211	-	211
TFB	81	-	81
TFC	108	-	108
TFD	864	95	959
TFE	225	152	377
TFG	12	-	12
TFH	40	1,257	1,297
TOTAL^b	1,541	1,504	3,045

^a Refer to Table 1 footnote for facilities in each treatment facility area.^b Rounded number.

Abbreviations for Tables 2, 3 and 4:

kg = Kilograms.

Mcf = millions of cubic feet.

Mgal = millions of gallons.

VOC = Volatile organic compound.

Attachment A

VOC, and Chromium Analyses

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFA^a													
TFA-I001	17-OCT-12	E601	<0.5	0.92	0.8	<0.5	1.2	<1	<0.5	7.1	<0.5	0.73	<0.5
TFA-I001	26-OCT-12	E601	<0.5	0.99	0.81	<0.5	1.2	<1	<0.5	6.9	<0.5	0.7	<0.5
TFA-I001	02-NOV-12	E601	<0.5	0.91	0.89	<0.5	1.3	<1	<0.5	5.9	<0.5	0.61	<0.5
TFA-I001	10-DEC-12	E601	<0.5	1	0.8	<0.5	1.1	<1	<0.5	6.6	<0.5	0.68	<0.5
TFA-E001	17-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E001	26-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E001	02-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E001	10-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFA-E^b													
W-254	01-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	0.61	<1	<0.5	38	<0.5	1.2	<0.5
STU06-I	06-NOV-12	E601	<0.5	<0.5	0.5	<0.5	0.66	<1	<0.5	41	<0.5	1.6	<0.5
STU06-E	01-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
STU06-E	06-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB													
TFB-I002	02-OCT-12	E601	0.61	2.5	<0.5	<0.5	1.6	<1	3.8	1.4	<0.5	15	<0.5
TFB-I002	01-NOV-12	E601	0.64	2.6	<0.5	<0.5	1.6	<1	4.1	1.6	<0.5	17	<0.5
TFB-I002	11-DEC-12	E601	0.58	2.3	<0.5	<0.5	1.3	<1	3.4	1.3	<0.5	13	<0.5
TFB-E002	02-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB-E002	01-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFB-E002	11-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC													
TFC-I003	02-OCT-12	E601	<0.5	0.86	<0.5	<0.5	0.71	<1	9.3	2.9	<0.5	9.7	<0.5
TFC-I003	01-NOV-12	E601	<0.5	0.95	<0.5	<0.5	0.67	<1	10	3.2	<0.5	11	<0.5
TFC-I003	03-DEC-12	E601	<0.5	1	<0.5	<0.5	<0.5	<1	9.9	3	<0.5	10	<0.5
TFC-E003	02-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E003	01-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E003	03-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-E													
MTU1-I	02-OCT-12	E601	<0.5	13	<0.5	<0.5	0.79	<1	10	0.63	<0.5	8.4	4
MTU1-I	07-NOV-12	E601	<0.5	12	<0.5	<0.5	0.73	<1	10	0.51	<0.5	7.4	3.6
MTU1-I	06-DEC-12	E601	<0.5	14	<0.5	<0.5	0.74	<1	11	0.71	<0.5	9.1	3.9

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFC-E (cont.)													
MTU1-E	02-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU1-E	07-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU1-E	06-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFC-SE													
PTU1-I	01-OCT-12	E601	<0.5	6.9	<0.5	<0.5	2.2	<1	16	0.7	<0.5	15	0.84
PTU1-I	01-NOV-12	E601	<0.5	7.4	<0.5	<0.5	1.9	<1	16	0.69	<0.5	16	1.1
PTU1-I	03-DEC-12	E601	<0.5	7.3	<0.5	<0.5	1.7	<1	17	0.69	<0.5	15	1.1
PTU1-E	01-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU1-E	01-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU1-E	03-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD													
TFD-I004	01-OCT-12	E601	2.1	2.4	<0.5	<0.5	1	<1	0.68	1.9	<0.5	53	15
TFD-I004	02-NOV-12	E601	2.3	3	<0.5	<0.5	1.2	<1	0.77	1.9	<0.5	59	18
TFD-I004	06-DEC-12	E601	1.2	2.7	<0.5	<0.5	0.6	<1	<0.5	1	<0.5	28	23
TFD-E004	01-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E004	02-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E004	06-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-E													
PTU8-I	02-OCT-12	E601	2.8	1.1	<0.5	<0.5	2.1	<1	<0.5	2.7	<0.5	50	<0.5
PTU8-I	07-NOV-12	E601	3.2	1.4	<0.5	0.82	2	<1	<0.5	2.3	<0.5	72	0.78
PTU8-I	06-DEC-12	E601	3.7	1.4	<0.5	0.84	1.6	<1	<0.5	2.4	<0.5	84	0.82
PTU8-E	02-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	07-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU8-E	06-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-HPD													
PTU10-I	04-OCT-12	E601	1.3	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	36	<0.5
PTU10-I	14-NOV-12	E601	1.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	36	<0.5
PTU10-I	11-DEC-12	E601	1.4	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	32	<0.5
PTU10-E	04-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU10-E	14-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU10-E	11-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFD-S													
PTU2-I	05-OCT-12	E601	0.82	1.8	<0.5	<0.5	4.1	<1	1.2	6.2	<0.5	52	<0.5
PTU2-I	07-NOV-12	E601	1.3	3	<0.5	<0.5	1.5	<1	<0.5	2.3	<0.5	44	<0.5
PTU2-I	07-DEC-12	E601	1.3	2.1	<0.5	<0.5	1.5	<1	0.5	2.4	<0.5	45	<0.5
PTU2-E	05-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU2-E	07-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU2-E	07-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-SE^c													
PTU11-I	31-OCT-12	E601	0.67	3.1	0.61	1	9.3	<1	0.67	23	<0.5	88	<0.5
PTU11-I	01-NOV-12	E601	0.71	3.2	0.58	1	8.8	<1	0.68	22	<0.5	86	<0.5
PTU11-I	02-NOV-12	E601	0.72	3.2	0.58	1.1	8.4	<1	0.66	19	<0.5	77	<0.5
PTU11-I	06-DEC-12	E601	0.66	3.3	0.65	1.3	9.4	<1	0.95	34	<0.5	94	<0.5
PTU11-E	31-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU11-E	01-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU11-E	06-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-SS													
PTU12-I	04-OCT-12	E601	1.7	2.3	0.66	2	11	<1	0.65	20	<0.5	120	5.3
PTU12-I	07-NOV-12	E601	1.8	2.3	0.68	2.1	9.9	<1	0.62	20	<0.5	120	5.3
PTU12-I	07-DEC-12	E601	1.8	2.3	0.52	1.8	8.2	<1	0.62	17	<0.5	110	7.9
PTU12-E	04-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU12-E	07-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU12-E	07-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFD-W													
PTU6-I	04-OCT-12	E601	<0.5	4.8	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	5.4	45
PTU6-I	14-NOV-12	E601	<0.5	5.1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.8	47
PTU6-I	11-DEC-12	E601	<0.5	4.7	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.4	42
PTU6-E	04-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU6-E	14-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU6-E	11-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-E													
PTU3-I	01-OCT-12	E601	<0.5	2.1	<0.5	<0.5	8.1	<1	7.3	8.2	<0.5	51	<0.5
PTU3-I	05-NOV-12	E601	<0.5	2.3	<0.5	<0.5	10	<1	8.8	13	<0.5	64	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFE-E (cont.)													
PTU3-I	04-DEC-12	E601	<0.5	2.3	<0.5	<0.5	6.2	<1	6	7.1	<0.5	42	<0.5
PTU3-E	01-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU3-E	05-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU3-E	04-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-HS													
W-2105	04-OCT-12	E601	<0.5	1	<0.5	<0.5	2.8	3.4	5.2	15	<0.5	280	<0.5
GTU07-I	04-OCT-12	E601	<0.5	1.1	<0.5	<0.5	2.7	3.4	5.3	14	<0.5	280	<0.5
GTU07-I	06-NOV-12	E601	<0.5	1.2	<0.5	<0.5	2.8	3.5	5.3	14	<0.5	250	<0.5
GTU07-I	04-DEC-12	E601	<0.5	1.2	<0.5	<0.5	2.8	3.5	5.3	16	<0.5	280	<0.5
GTU07-E	04-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU07-E	06-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU07-E	04-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-NW													
PTU9-I	05-OCT-12	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	1.2	<0.5	<0.5	11	<0.5
PTU9-I	09-NOV-12	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	1.2	<0.5	<0.5	12	<0.5
PTU9-I	12-DEC-12	E601	<0.5	1.1	<0.5	<0.5	<0.5	<1	1.1	<0.5	<0.5	12	<0.5
PTU9-E	05-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU9-E	09-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU9-E	12-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-SE													
W-359	01-OCT-12	E601	3.2	1.4	<0.5	<0.5	20	<1	5.5	9.4	<0.5	200	0.86
MTU04-I	05-NOV-12	E601	3.9	1.4	<0.5	<0.5	18	<1	6.2	8.5	<0.5	200	1
MTU04-I	04-DEC-12	E601	3.8	1.5	<0.5	<0.5	17	<1	6.1	9.1	<0.5	180	0.93
MTU04-E	01-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU04-E	05-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU04-E	04-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-SW													
MTU03-I	03-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	1.7	1.8	3.4	1.1	<0.5	15	<0.5
MTU03-I	13-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	1.6	1.6	3.3	1.1	<0.5	15	<0.5
MTU03-I	11-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	1.6	1.5	3.4	1.1	<0.5	13	<0.5
MTU03-E	03-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFE-SW (cont.)													
MTU03-E	13-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU03-E	11-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFE-W													
MTU05-I	03-OCT-12	E601	<0.5	1	<0.5	<0.5	1.9	1.1	13	6.4	<0.5	29	0.52
MTU05-I	14-NOV-12	E601	<0.5	1.1	<0.5	<0.5	1.9	1	14	7	<0.5	29	0.56
MTU05-I	11-DEC-12	E601	<0.5	0.98	<0.5	<0.5	1.8	<1	14	6.5	<0.5	27	<0.5
MTU05-E	03-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU05-E	14-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU05-E	11-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFG-1													
W-1111	04-OCT-12	E601	2.3	11	<0.5	<0.5	0.83	<1	0.52	1	<0.5	3.8	<0.5
GTU01-I	09-NOV-12	E601	2.9	11	<0.5	<0.5	0.89	<1	0.51	0.97	<0.5	3.8	<0.5
GTU01-I	06-DEC-12	E601	2.7	11	<0.5	<0.5	0.82	<1	0.52	0.95	<0.5	3.6	<0.5
GTU01-E	04-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU01-E	09-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU01-E	06-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TFG-N													
MTU02-I	04-OCT-12	E601	<0.5	1.4	<0.5	<0.5	1.2	<1	1.2	16	<0.5	5.2	<0.5
MTU02-I	09-NOV-12	E601	<0.5	1.5	<0.5	<0.5	1.2	<1	1.2	16	<0.5	4.8	<0.5
MTU02-I	06-DEC-12	E601	<0.5	1.5	<0.5	<0.5	1.2	<1	1.1	16	<0.5	5	<0.5
MTU02-E	04-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU02-E	09-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
MTU02-E	06-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF406													
PTU5-I	03-OCT-12	E601	<0.5	0.51	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.6	<0.5
PTU5-I	14-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.8	<0.5
PTU5-I	11-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.4	<0.5
PTU5-E	03-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU5-E	14-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
PTU5-E	11-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

Sample Station	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TF406-NW													
W-1801	10-OCT-12	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	4.6	0.73	<0.5	23	<0.5
GTU03-I	07-NOV-12	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	4.2	0.7	<0.5	22	<0.5
GTU03-I	06-DEC-12	E601	<0.5	1.1	<0.5	<0.5	<0.5	<1	4.3	0.65	<0.5	22	<0.5
GTU03-E	10-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU03-E	07-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU03-E	06-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF518-N^d													
W-1410	11-OCT-12	E601	3.1	2.5	<0.5	0.65	<0.5	<1	<0.5	1.3	<0.5	29	<0.5
TF5475-1^e													
W-1302-2	27-NOV-12	E601	2.4	45	1.6	7	22	1.8	6.8	59	<0.5	460	<0.5
TF5475-2													
GTU09-I	02-OCT-12	E601	1.7	18	0.61	2.5	15	<1	5.2	31	<0.5	260	<0.5
GTU09-I	07-NOV-12	E601	2.3	22	0.72	3	17	<1	6.6	40	<0.5	280	<0.5
GTU09-I	06-DEC-12	E601	2.9	28	0.83	4.5	21	<1	7.9	51	<0.5	400	<0.5
GTU09-E	02-OCT-12	E601	<0.5	1	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
GTU09-E	07-NOV-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	0.64	<0.5
GTU09-E	06-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
TF5475-3^f													
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Notes on following page.

Table A-1. VOC analyses of influent and effluent samples by treatment facility.

^a TFA testing & verification subsequent to the TFA Arroyo Seco pipeline extension was completed during the month of October.

^b TFA-E did not operate in December due to lack of ground water in extraction well W-254, the sole source of water for this facility.

^c TFD-SE testing & verification due to system modifications (as part of the Remediation Evaluation [REVAL] project for this facility) was completed during the month of November.

^d TF518-N did not operate during this reporting period due to mixed waste disposition issues.

^e TF5475-1 did not operate during this reporting period due to mixed waste disposition issues.

^f TF5475-3 did not operate during this reporting period due to mixed waste disposition issues.

Notes:

CTET = Carbon tetrachloride

CFORM = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFA													
W-109	09-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	0.67	1.6	<0.5	<0.5	<0.5
W-262	09-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
W-404	10-DEC-12	E601	<0.5	<0.5	0.67	<0.5	0.99	<1	0.5	5.7	<0.5	<0.5	<0.5
W-408	09-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	0.57	<0.5	<0.5	<0.5
W-415	09-OCT-12	E601	<0.5	1.7	0.56	<0.5	1.4	<1	<0.5	9.6	<0.5	1.1	<0.5
W-457	09-OCT-12	E601	<0.5	<0.5	0.88	<0.5	0.95	<1	<0.5	6.2	<0.5	<0.5	<0.5
W-518	09-OCT-12	E601	<0.5	<0.5	7.9	<0.5	3.8	<1	<0.5	3.7	<0.5	0.53	<0.5
W-522	09-OCT-12	E601	<0.5	<0.5	1.7	<0.5	1.1	<1	<0.5	3.6	<0.5	<0.5	<0.5
W-605	09-OCT-12	E601	<0.5	0.63	0.89	<0.5	1.2	<1	<0.5	17	<0.5	0.97	<0.5
W-614	09-OCT-12	E601	<0.5	0.56	<0.5	<0.5	<0.5	<1	<0.5	6.4	<0.5	<0.5	<0.5
W-712	09-OCT-12	E601	2.8	3	1.2	<0.5	3.8	<1	<0.5	2.1	<0.5	3.7	<0.5
W-714	09-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	8.3	<0.5	<0.5	<0.5
W-903	09-OCT-12	E601	<0.5	<0.5	1.1	<0.5	0.87	<1	<0.5	5.1	<0.5	<0.5	<0.5
W-904	09-OCT-12	E601	<0.5	<0.5	0.66	<0.5	1	<1	<0.5	5.9	<0.5	<0.5	<0.5
W-1001	09-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5
W-1004	09-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	2.5	<0.5	<0.5	<0.5
W-1009	09-OCT-12	E601	1.1	5.1	0.71	<0.5	3.1	<1	0.63	11	<0.5	2.2	<0.5
TFA-E													
W-254	01-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	0.61	<1	<0.5	38	<0.5	1.2	<0.5
TFB													
W-357	02-OCT-12	E601	1.3	2.6	<0.5	<0.5	1.6	<1	5.6	1.2	<0.5	36	<0.5
W-610	08-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	0.63	<1	1.3	0.63	<0.5	1.3	<0.5
W-620	02-OCT-12	E601	<0.5	1.1	<0.5	<0.5	1.9	<1	2.4	1.5	<0.5	5.1	<0.5
W-621	08-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	0.89	<0.5	<0.5	2.1	<0.5
W-655	08-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	5.4	<0.5	<0.5	1.4	<0.5
W-704	02-OCT-12	E601	0.54	3.4	<0.5	<0.5	2.1	<1	6.5	3	<0.5	20	<0.5
W-1423	02-OCT-12	E601	0.68	4.7	<0.5	<0.5	3.4	<1	3.4	2.1	<0.5	9.8	<0.5
W-2501	02-OCT-12	E601	<0.5	0.52	<0.5	<0.5	<0.5	<1	1.4	<0.5	<0.5	7.6	<0.5
W-2502	02-OCT-12	E601	0.76	4.4	<0.5	<0.5	2.5	<1	0.59	<0.5	<0.5	2.3	<0.5
TFC													
W-701	02-OCT-12	E601	<0.5	1.8	<0.5	<0.5	1.5	<1	26	3.5	<0.5	20	<0.5
W-1015	02-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	0.79	<1	1.9	1	<0.5	4.4	<0.5
W-1102	02-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	3	<0.5	<0.5	1.5	<0.5
W-1103	02-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	1.3	<0.5
W-1104	02-OCT-12	E601	<0.5	0.51	<0.5	<0.5	<0.5	<1	1.9	3.2	<0.5	6.1	<0.5
W-1116	02-OCT-12	E601	<0.5	1.1	<0.5	<0.5	<0.5	<1	6.3	3.8	<0.5	7.9	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFC-E													
W-368	02-OCT-12	E601	<0.5	6.9	<0.5	<0.5	0.51	<1	22	2.8	<0.5	14	5
W-413	02-OCT-12	E601	<0.5	14	<0.5	<0.5	0.99	<1	11	<0.5	<0.5	8.3	4.6
TFC-SE													
W-1213	01-OCT-12	E601	<0.5	6.6	<0.5	<0.5	2.5	<1	8.6	<0.5	<0.5	13	<0.5
W-2201	01-OCT-12	E601	<0.5	7.1	<0.5	<0.5	2.2	<1	18	0.88	<0.5	16	1
TFD													
W-351	01-OCT-12	E601	30	5.2	<0.5	1	6.5	<1	5.8	7.6	<0.5	640	1.2
W-653	01-OCT-12	E601	23	6.8	<0.5	<0.5	0.78	<1	2.8	0.85	<0.5	780	<0.5
W-906	01-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	3	<0.5
W-907-2	01-OCT-12	E601	<0.5	4.4	<0.5	<0.5	3	<1	1.1	5.9	<0.5	59	<0.5
W-2011	01-OCT-12	E601	0.63	0.77	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	13	<0.5
W-2101	01-OCT-12	E601	6	2.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	220	<0.5
W-2102	01-OCT-12	E601	19	5.7	<0.5	<0.5	0.52	<1	2.6	0.6	<0.5	620	1.6
W-1206	01-OCT-12	E601	0.91	2.2	<0.5	<0.5	0.53	<1	<0.5	<0.5	<0.5	18	<0.5
W-1208	01-OCT-12	E601	2.3	1.9	<0.5	<0.5	<0.5	<1	0.53	0.69	<0.5	47	35
TFD-E													
W-2006	02-OCT-12	E601	0.65	1.3	1.6	5	46	<1	<0.5	42	<0.5	250	<0.5
W-1301	02-OCT-12	E601	1.6	0.99	<0.5	1.2	12	<1	<0.5	13	<0.5	66	<0.5
W-1303	07-NOV-12	E601	4.7	3	1.2	4.9	7.2	1.8	<0.5	8.4	<0.5	170	5.6
W-1306	02-OCT-12	E601	1.4	1.8	<0.5	<0.5	<0.5	<1	<0.5	1.8	<0.5	46	<0.5
W-1307	02-OCT-12	E601	1.4	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	22	<0.5
W-1550	02-OCT-12	E601	5.6	4.1	<0.5	<0.5	0.61	<1	<0.5	2.3	<0.5	150	<0.5
W-2203	02-OCT-12	E601	7.9	2.3	<0.5	<0.5	1.6	<1	1.7	4.8	<0.5	85	<0.5
TFD-HPD													
W-1254	04-OCT-12	E601	1.3	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	37	<0.5
W-1650	17-OCT-12	E601	2	1.1	<0.5	<0.5	<0.5	<1	1.4	<0.5	<0.5	97	<0.5
W-1653	17-OCT-12	E601	0.66	1.5	<0.5	<0.5	<0.5	7.2	<0.5	0.73	<0.5	88	<0.5
W-1655	17-OCT-12	E601	<0.5	2	<0.5	<0.5	<0.5	30	<0.5	2.1	<0.5	44	<0.5
W-1657	17-OCT-12	E601	2.4	2.2	<0.5	<0.5	<0.5	1.3	1.2	<0.5	<0.5	330	<0.5
TFD-S													
W-1503	05-OCT-12	E601	1.7	1.8	<0.5	<0.5	1.5	<1	0.59	2	<0.5	50	<0.5
W-1504	05-OCT-12	E601	<0.5	1.3	<0.5	<0.5	9.2	1.5	2.6	14	<0.5	69	<0.5
W-1510	05-OCT-12	E601	<0.5	3	<0.5	<0.5	1.7	<1	<0.5	3	<0.5	23	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFD-SE													
W-314	11-DEC-12	E601	<0.5	2	0.57	<0.5	2.7	<1	0.97	5.1	<0.5	38	<0.5
W-2005	11-DEC-12	E601	0.78	0.76	<0.5	0.84	8	<1	<0.5	12	<0.5	44	<0.5
W-1308	11-DEC-12	E601	<0.5	0.99	0.83	1.6	13	<1	<0.5	87	<0.5	76	<0.5
W-1403	11-DEC-12	E601	0.55	1.6	0.86	1.7	14	<1	<0.5	87	<0.5	90	<0.5
W-1904	11-DEC-12	E601	<0.5	<0.5	<0.5	<0.5	6.1	<1	<0.5	33	<0.5	15	<0.5
SIP-ETC-201	11-DEC-12	E601	<0.5	0.85	3.2	1.3	80	<1	<0.5	520	<0.5	310	<0.5
TFD-SS													
W-1523	04-OCT-12	E601	3.1	3.5	<0.5	1.3	10	<1	1.6	19	<0.5	120	<0.5
W-1601	04-OCT-12	E601	3.4	4	1.5	5.5	29	1.2	1.4	73	<0.5	270	<0.5
W-1602	04-OCT-12	E601	<0.5	1.4	<0.5	<0.5	0.59	<1	<0.5	1.5	<0.5	12	4.2
W-1603	04-OCT-12	E601	1.3	1.8	0.87	2.7	12	<1	<0.5	22	<0.5	140	8.1
TFD-W													
W-1215	04-OCT-12	E601	<0.5	6.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	4.1	17
W-1216	04-OCT-12	E601	<0.5	4.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	3.4	33
W-1902	04-OCT-12	E601	0.53	3.2	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	6.1	63
TFE-E													
W-566	01-OCT-12	E601	<0.5	2.5	<0.5	<0.5	4.7	<1	7.9	2.9	<0.5	36	<0.5
W-1109	01-OCT-12	E601	<0.5	0.62	<0.5	<0.5	28	<1	5.1	43	<0.5	170	<0.5
W-1903	01-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	23	<1	6.9	20	<0.5	40	<0.5
W-1909 ^a	14-NOV-11	E601	<0.5	<0.5	<0.5	<0.5	9.1	1.1	<0.5	5.4	<0.5	6.5	<0.5
W-2305	31-OCT-12	E601	<0.5	0.74	1.5	<0.5	85	<1	27	110	<0.5	220	<0.5
TFE-HS													
W-2105	04-OCT-12	E601	<0.5	1	<0.5	<0.5	2.8	3.4	5.2	15	<0.5	280	<0.5
TFE-NW													
W-1211	05-OCT-12	E601	<0.5	1.4	<0.5	<0.5	<0.5	<1	1.5	<0.5	<0.5	9.2	<0.5
W-1409	05-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	0.55	<1	<0.5	1.1	<0.5	18	<0.5
TFE-SE													
W-359	01-OCT-12	E601	3.2	1.4	<0.5	<0.5	20	<1	5.5	9.4	<0.5	200	0.86
TFE-SW													
W-1518	03-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	1.7	1.8	3.3	1.1	<0.5	15	<0.5
W-1520	03-OCT-12	E601	10	7.8	<0.5	5.1	3	2.6	<0.5	17	<0.5	340	<0.5
W-1522	03-OCT-12	E601	1.5	3.2	1	<0.5	7.4	16	1.9	1.9	<0.5	73	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TFE-W													
W-292	03-OCT-12	E601	<0.5	0.77	<0.5	<0.5	0.92	2.6	1.4	1.2	<0.5	19	<0.5
W-305	03-OCT-12	E601	<0.5	1.2	<0.5	<0.5	2.5	<1	18	9	<0.5	34	0.74
TFG-1													
W-1111	04-OCT-12	E601	2.3	11	<0.5	<0.5	0.83	<1	0.52	1	<0.5	3.8	<0.5
TFG-N													
W-1806	04-OCT-12	E601	<0.5	0.72	<0.5	<0.5	<0.5	<1	<0.5	12	<0.5	3.3	<0.5
W-1807	04-OCT-12	E601	<0.5	1.9	<0.5	<0.5	1.7	<1	1.8	18	<0.5	6.3	<0.5
TF406													
W-1309	03-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	2.6	<0.5
W-1310	03-OCT-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	3.4	<0.5
TF406-NW													
W-1801	10-OCT-12	E601	<0.5	1.2	<0.5	<0.5	<0.5	<1	4.6	0.73	<0.5	23	<0.5
TF518-N^b													
W-1410	11-OCT-12	E601	3.1	2.5	<0.5	0.65	<0.5	<1	<0.5	1.3	<0.5	29	<0.5
TF518-PZ													
W-1615	07-NOV-12	E601	<0.5	0.5	<0.5	<0.5	3.8	<1	<0.5	43	<0.5	160	<0.5
W-518-1913 ^a	23-MAY-11	E601	<0.5	<0.5	<0.5	<0.5	0.76	<1	<0.5	3.8	<0.5	29	<0.5
W-518-1914 ^a	16-JUL-12	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	100	<0.5	13	<0.5
W-518-1915	07-NOV-12	E601	<0.5	0.9	<0.5	<0.5	5	<1	<0.5	86	<0.5	630	<0.5
SVB-518-201 ^a	07-FEB-08	E601	<0.5	<0.5	<0.5	<0.5	<0.5	<1	<0.5	35	<0.5	8.5	<0.5
SVB-518-204 ^a	07-FEB-08	E601	<0.5	0.63	<0.5	<0.5	1.4	<1	<0.5	43	<0.5	550	<0.5
TF5475-1^b													
W-1302-2	27-NOV-12	E601	2.4	45	1.6	7	22	1.8	6.8	59	<0.5	460	<0.5
TF5475-2													
W-1108	02-OCT-12	E601	1.8	17	0.57	2.4	15	<1	5.1	30	<0.5	250	<0.5
W-1415	15-OCT-12	E601	<0.5	6.5	<0.5	<0.5	3	7.2	<0.5	5.8	<0.5	47	<0.5
TF5475-3^b													
W-1604	27-NOV-12	E601	5.5	61	1.8	16	33	1.9	<0.5	93	<0.5	740	<0.5
W-1605	27-NOV-12	E601	<0.5	23	<0.5	2.1	1	20	<0.5	6.2	<0.5	47	<0.5
W-1608 ^a	26-SEP-12	E601	<0.5	28	0.69	2.7	2.8	32	<0.5	9.2	<0.5	84	<0.5

Table A-2. VOC analyses of samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE ug/L (ppb)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
TF5475-3 (cont.)													
W-1609	27-NOV-12	E601	<0.5	27	0.55	2.2	3	3.7	<0.5	11	<0.5	100	<0.5

Notes on following page.

Table A-2. VOC analyses of samples from treatment facility extraction wells.

^a Most recent VOC sample results available.

^b Treatment Facility did not operate during reporting period. Please refer to Table A-1 for details.

Notes:

CTET = Carbon tetrachloride

CFORM = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE PPM(V/V)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
VTFD-ETCS^a													
W-1904	06-DEC-12	TO15DIT	<0.0065	<0.0065	<0.0065	<0.0065	0.075	<0.0065	<0.0065	0.39	<0.0065	0.15	<0.0065
W-ETC-2003	06-DEC-12	TO15DIT	<0.0068	<0.0068	<0.0068	<0.0068	0.0071	<0.0068	<0.0068	0.17	<0.0068	0.095	<0.0068
W-ETC-2004A	06-DEC-12	TO15DIT	<0.0068	0.014	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	0.43	<0.0068	0.16	<0.0068
W-ETC-2004B	06-DEC-12	TO15DIT	<0.0068	0.02	0.009	<0.0068	0.1	<0.0068	<0.0068	0.98	<0.0068	1.7	<0.0068
SIP-ETC-201	06-DEC-12	TO15DIT	<0.0068	<0.0068	0.011	<0.0068	0.23	<0.0068	<0.0068	1.2	<0.0068	0.71	<0.0068
VTFD-HS^b													
W-653 ^c	03-NOV-09	TO15DIT	0.026	<0.005	<0.005	<0.005	<0.005	<0.005	0.016	<0.005	<0.005	0.58	<0.005
W-2011 ^c	15-FEB-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.081	<0.005
W-2101 ^c	03-NOV-09	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.052	<0.005
W-2102 ^c	15-FEB-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.11	<0.005
VTFE-ELM													
W-1903	29-OCT-12	TO15DIT	<0.012	<0.012	<0.012	<0.012	0.93	<0.012	0.3	0.91	<0.012	2.1	<0.012
W-1909 ^c	06-OCT-11	TO15DIT	<0.005	0.034	<0.005	<0.005	0.51	<0.005	0.054	0.88	<0.005	1.2	<0.005
W-2305 ^c	06-OCT-11	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.2	<0.005	0.036	0.46	<0.005	0.55	<0.005
W-543-001	29-OCT-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.01	<0.005	<0.005	0.73	<0.005	0.1	<0.005
W-543-003	29-OCT-12	TO15DIT	<0.0062	0.017	<0.0062	<0.0062	0.11	<0.0062	0.03	0.25	<0.0062	0.51	<0.0062
W-543-1908	29-OCT-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	0.016	<0.005	<0.005	0.07	<0.005	0.29	<0.005
VTFE-HS													
W-2105	29-OCT-12	TO15DIT	<0.012	<0.012	<0.012	<0.012	0.02	<0.012	0.099	0.18	<0.012	2.2	<0.012
W-ETS-2008A	29-OCT-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0086	<0.005	0.016	<0.005
W-ETS-2008B	29-OCT-12	TO15DIT	<0.0072	<0.0072	<0.0072	<0.0072	0.012	<0.0072	0.02	0.5	<0.0072	1	<0.0072
W-ETS-2009	29-OCT-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.058	<0.005	0.2	<0.005
W-ETS-2010A	29-OCT-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.082	<0.005	0.16	<0.005
W-ETS-2010B	29-OCT-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.061	<0.005	0.1	<0.005
VTF406-HS													
W-217	11-OCT-12	TO15DIT	0.12	0.046	<0.01	<0.01	0.81	0.015	0.16	0.6	<0.01	1.8	<0.01
W-514-2007A	11-OCT-12	TO15DIT	0.02	<0.005	<0.005	<0.005	0.014	<0.005	0.053	0.044	0.0054	0.22	0.92
W-514-2007B	11-OCT-12	TO15DIT	0.053	0.022	<0.005	<0.005	0.34	<0.005	0.048	0.22	<0.005	0.81	0.026
VTF511													
W-2204	13-NOV-12	TO15DIT	0.083	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.55	<0.05	4.8	<0.05
W-2205	13-NOV-12	TO15DIT	0.055	<0.017	<0.017	<0.017	0.018	<0.017	<0.017	0.14	<0.017	1.9	<0.017
W-2206 ^c	17-JUL-12	TO15DIT	0.0058	0.0088	<0.005	0.0055	<0.005	<0.005	<0.005	0.14	<0.005	1	<0.005
W-2207A	13-NOV-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.015	<0.005	0.43	<0.005
W-2207B	13-NOV-12	TO15DIT	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	0.019	<0.017	1.7	<0.017

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

Extraction Well	Date Sampled	Analytic Method	CTET <-	CFORM -	1,1-DCA -	1,2-DCA -	1,1-DCE PPM(V/V)	1,2-DCE -	Freon 113 -	PCE -	1,1,1-TCA -	TCE -	Freon 11 ->
VTF511 (cont.)													
W-2208A	13-NOV-12	TO15DIT	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072	7.4	<0.072
W-2208B	11-OCT-12	TO15DIT	0.11	<0.1	<0.1	<0.1	0.63	0.13	<0.1	0.29	<0.1	13	<0.1
VTF518-PZ													
W-1615	30-OCT-12	TO15DIT	<0.062	<0.062	<0.062	<0.062	0.36	<0.062	<0.062	4.5	<0.062	9.3	<0.062
W-518-1913	30-OCT-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.026	<0.005	0.1	<0.005
W-518-1914	30-OCT-12	TO15DIT	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	<0.0072	0.84	<0.0072	0.12	<0.0072
W-518-1915	30-OCT-12	TO15DIT	<0.084	<0.084	<0.084	<0.084	0.11	<0.084	<0.084	14	<0.084	7.5	<0.084
SVB-518-201	30-OCT-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.008	<0.005	0.02	<0.005
SVB-518-204	30-OCT-12	TO15DIT	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.096	<0.005	0.16	<0.005
VTF5475^d													
W-ETS-507	10-DEC-12	TO15DIT	<0.005	0.073	<0.005	0.014	<0.005	<0.005	<0.005	0.013	<0.005	0.066	<0.005
W-1605 ^c	06-SEP-07	TO15DI	0.0069	0.17	<0.005	0.15	0.11	<0.005	0.036	0.1	<0.005	0.85	<0.005
W-1608 ^c	06-SEP-07	TO15DI	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0061	<0.005
W-2211	06-DEC-12	TO15DIT	<0.007	0.39	0.012	0.038	0.18	<0.007	0.034	0.16	<0.007	1.2	<0.007
W-2212	06-DEC-12	TO15DIT	<0.007	0.14	<0.007	0.017	0.18	<0.007	0.031	0.072	<0.007	0.48	<0.007
W-2302	06-DEC-12	TO15DIT	<0.007	0.032	<0.007	<0.007	0.06	<0.007	0.0096	0.049	<0.007	0.68	<0.007
W-2303	06-DEC-12	TO15DIT	<0.0068	0.25	0.0083	0.034	0.047	<0.0068	<0.0068	0.12	<0.0068	0.89	<0.0068
SVI-ETS-504	06-DEC-12	TO15DIT	<0.0068	0.32	0.0077	<0.0068	0.065	<0.0068	<0.0068	0.17	<0.0068	0.79	<0.0068

Notes on following page.

Table A-3. VOC analyses of vapor samples from treatment facility extraction wells.

^a VTFD-ETCS did not operate during the months of October and November due to a facility vacuum pump blower failure.

^b VTFD-HS did not operate during reporting period due to dual extraction well ground water pump failure. Extraction wells are operated cyclically without applied-vacuum. Ground water is treated at TFD.

^c Most recent VOC vapor sample results available.

^d VTF5475 did not operate during reporting period due to mixed waste disposition issues.

Notes:

CTET = Carbon tetrachloride

CFORM = Chloroform

1,1-DCA = 1,1-Dichloroethane

1,2-DCA = 1,2-Dichloroethane

1,1-DCE = 1,1-Dichloroethylene

1,2-DCE = 1,2-Dichloroethylene

Freon 113 = Trichlorotrifluoroethane

PCE = Tetrachloroethylene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

Freon 11 = Trichlorofluoromethane

VOC = volatile organic compound

Numbers in **BOLD** print indicate positive values above the detection limit.

Table A-4. Chromium analyses of influent, effluent and receiving water samples by treatment facility.

Treatment Facility	Sample Station	Date Sampled	Chromium (total)^a mg/L (ppm)	Hexavalent Chromium mg/L (ppm)
TFB	TFB-E002	02-OCT-12	0.021	NA
	TFB-E002	01-NOV-12	0.02	NA
	TFB-E002	11-DEC-12	0.015	NA
TFC	TFC-E003	02-OCT-12	0.021	NA
	TFC-E003	01-NOV-12	0.02	NA
	TFC-E003	03-DEC-12	0.019	NA
TFC-E	MTU1-E	02-OCT-12	0.043	NA
	MTU1-E	07-NOV-12	0.037	NA
	MTU1-E	06-DEC-12	<0.001	NA
TFC-SE	PTU1-E	01-OCT-12	0.035	NA
	PTU1-E	01-NOV-12	0.033	NA
	PTU1-E	03-DEC-12	0.019	NA

^aA discharge limit of 0.050 ppm is set for total chromium during the dry season (April 1-November 30), and no limit is set for total chromium for the wet season (December 1-March 31); however, a limit of 0.022 ppm hexavalent chromium applies during the wet season. Discharge limits are defined in the Explanation of Significant Differences for metals discharge limits (April 1997).

Shaded values exceeded the discharge limit. See text for explanation.

Explanation of Abbreviations

TFA-I001 is a sampling port located immediately prior to the TFA Treatment System.

TFA-E001 is a sampling port located immediately after the TFA Treatment System, at the beginning of the discharge pipeline.

TFA receiving water is routinely sampled at the TFG-ASW location.

TFB-I002 is a sampling port located immediately prior to the TFB Treatment System.

TFB-E002 is a sampling port located immediately after the TFB Treatment System, at the beginning of the discharge pipeline.

TFB-R002 is a sampling station in the drainage ditch north of TFB, located approximately 75 ft downstream from the discharge point.

TFC-I003 is a sampling port located immediately prior to the TFC Treatment System.

TFC-E003 is a sampling port located immediately after the TFC Treatment System, at the beginning of the discharge pipeline.

TFC-R003 is a sampling station in Arroyo Las Positas, located approximately 75 ft downstream from the TFC discharge point.

TFD-I004 is a sampling port located immediately prior to the TFD Treatment System.

TFD-E004 is a sampling port located immediately after the TFD Treatment System, prior to discharge to the Lake Haussmann or to the underground discharge pipeline leading to Arroyo Las Positas.

TFD-R004 is now combined with and collected at the TFC-R003 location. Results are reported under TFC-R003, as approved by the RWQCB.

CRD1-I is a sampling port located immediately prior to the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1).

CRD1-E is the effluent from the catalytic column in the Catalytic Reductive Dehalogenation treatment unit 1 (CRD1) and then reinjected at W-1302.

CRD2-I is a sampling port located immediately prior to the catalytic columns in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2).

CRD2-E is the effluent from the last catalytic column in the Catalytic Reductive Dehalogenation treatment unit 2 (CRD2) and then reinjected at W-1610.

GTU01-I is a sampling port located immediately prior to GTU01, which is currently operating in the TFG-1 area.

GTU01-E is a sampling port located immediately after GTU01, which is currently operating in the TFG-1 area.

GTU01 receiving water is routinely sampled at the TFG-ASW location.

GTU03-I is a sampling port located immediately prior to GTU03, which is currently operating in the TF406 Northwest area.

GTU03-E is a sampling port located immediately after GTU03, which is currently operating in the TF406 Northwest area.

GTU03 receiving water is routinely sampled at the TFC-R003 location.

GTU07-I is a sampling port located immediately prior to GTU07, which is currently operating in the TFE Hotspot area.

GTU07-E is a sampling port located immediately after GTU07, which is currently operating in the TFE Hotspot area.

GTU07 receiving water is routinely sampled at the TFC-R003 location.

GTU09-I is a sampling port located immediately prior to GTU09, which is currently operating in the TF5475 area.

GTU09-E is a sampling port located immediately after GTU09, which is currently operating in the TF5475 area.

GTU09 receiving water is routinely sampled at the TFC-R003 location.

MTU02-I is a sampling port located immediately prior to MTU02, which is currently operating in the TFG North area.

MTU02-E is a sampling port located immediately after MTU02, which is currently operating in the TFG North area.

MTU02 receiving water is routinely sampled at the TFC-R003 location.

MTU03-I is a sampling port located immediately prior to MTU03, which is currently operating in the TFE Southwest area.

MTU03-E is a sampling port located immediately after MTU03, which is currently operating in the TFE Southwest area.

MTU03 receiving water is routinely sampled at the TFC-R003 location.

MTU04-I is a sampling port located immediately prior to MTU04, which is currently operating in the TFE Southeast area.

MTU04-E is a sampling port located immediately after MTU04, which is currently operating in the TFE Southeast area.

MTU04 receiving water is routinely sampled at the TFC-R003 location.

MTU05-I is a sampling port located immediately prior to MTU05, which is currently operating in the TFE West area.

MTU05-E is a sampling port located immediately after MTU05, which is currently operating in the TFE West area.

MTU05 receiving water is routinely sampled at the TFC-R003 location.

MTU1-I is a sampling port located immediately prior to MTU1, which is currently operating in the TFC East area.

MTU1-E is a sampling port located immediately after MTU1, which is currently operating in the TFC East area.

Explanation of Abbreviations

MTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU1-I is a sampling port located immediately prior to PTU-1, which is currently operating in the TFC Southeast area.

PTU1-E is a sampling port located immediately after PTU-1, which is currently operating in the TFC Southeast area.

PTU1 receiving water is routinely sampled at the TFC-R003 location.

PTU2-I is a sampling port located immediately prior to PTU-2, which is currently operating in the TFD South area.

PTU2-E is a sampling port located immediately after PTU-2, which is currently operating in the TFD South area.

PTU2 receiving water is routinely sampled at TFC-R003 during the wet season.

PTU3-I is a sampling port located immediately prior to PTU-3, which is currently operating in the TFE East area.

PTU3-E is a sampling port located immediately after PTU-3, which is currently operating in the TFE East area.

PTU3 receiving water is routinely sampled at the TFC-R003 location.

PTU5-I is a sampling port located immediately prior to PTU-5, which is currently operating in the TF406 extraction location.

PTU5-E is a sampling port located immediately after PTU-5, which is currently operating in the TF406 extraction location.

PTU5 receiving water is routinely sampled at the TFC-R003 location.

PTU6-I is a sampling port located immediately prior to PTU-6, which is currently operating in the TFD West area.

PTU6-E is a sampling port located immediately after PTU-6, which is currently operating in the TFD West area.

PTU6 receiving water is routinely sampled at the TFC-R003 location.

PTU8-I is a sampling port located immediately prior to PTU-8, which is currently operating in the TFD East area.

PTU8-E is a sampling port located immediately after PTU-8, which is currently operating in the TFD East area.

PTU8 receiving water is routinely sampled at the TFC-R003 location.

PTU9-I is a sampling port located immediately prior to PTU-9, which is currently operating in the TFE Northwest area.

PTU9-E is a sampling port located immediately after PTU-9, which is currently operating in the TFE Northwest area.

PTU9 receiving water is routinely sampled at the TFC-R003 location.

PTU10-I is a sampling port located immediately prior to PTU-10, which is currently operating in the TFD Helipad area.

PTU10-E is a sampling port located immediately after PTU-10, which is currently operating in the TFD Helipad area.

PTU10 receiving water is routinely sampled at the TFC-R003 location.

PTU11-I is a sampling port located immediately prior to PTU-11, which is currently operating in the TFD Southeast area.

PTU11-E is a sampling port located immediately after PTU-11, which is currently operating in the TFD Southeast area.

PTU11 receiving water is routinely sampled at the TFC-R003 location.

PTU12-I is a sampling port located immediately prior to PTU-12, which is currently operating in the TFD Southshore area.

PTU12-E is a sampling port located immediately after PTU-12, which is currently operating in the TFD Southshore area.

PTU12 receiving water is routinely sampled at the TFC-R003 location.

STU06-I is a sampling port located immediately prior to STU06, which is operating in the TFA East area.

STU06-E is a sampling port located immediately after STU06, which is operating in the TFA East area.

STU06 receiving water is routinely sampled at the TFG-ASW location.

STU09-I is a sampling port located immediately prior to STU09, which is currently operating in the TF518-North area.

STU09-E is a sampling port located immediately after STU09, which is currently operating in the TF518-North area.

STU09 receiving water is routinely sampled at the TFC-R003 location.

Attachment B

Self-Monitoring Reports

Self-Monitoring Report

LLNL Treatment Facility A (TFA)

AREA TFA

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
 October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 718

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-17-2012
 Influent pH: 7.0
 Effluent pH: 7.5
 Effluent Temperature (°C): 18.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-109	984	0.0
W-262	216	0.0
W-404	560,805	32.2
W-408	460,732	10.0
W-415	1,492,516	40.3
W-457	1,024,736	22.4
W-518	197,884	4.6
W-522	669,516	15.6
W-605	370,388	8.5
W-614	458,752	10.8
W-712	282,376	6.4
W-714	345,448	8.3
W-903	666,708	14.2
W-904	1,483,672	33.4
W-1001	179,512	4.2
W-1004	485,356	11.4
W-1009	1,012,308	23.3
Total:	<u>9,691,909</u>	<u>245.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>4,616,309</u>

Self-Monitoring Report (cont'd)
LLNL Treatment Facility A (TFA)
AREA TFA

Arroyo Seco

TFG-ASW

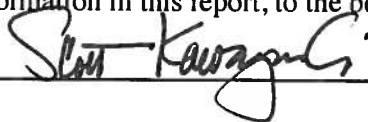
5,075,600

6. Comments:

System down on 10-1-12. Restarted on 10-3-12 with W-404 in day-only operation. Facility secured on 10-10-12 for interlock checks. Restarted on 10-11-12. W-404 began running in 24 hour operation mode on 10-15-12. Facility down on 10-29-12 due to radio communications fault. Restarted on 10-30-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____



Date: 11-06-2012

Self-Monitoring Report

LLNL Treatment Facility A (TFA)

AREA TFA

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 640

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-02-2012
 Influent pH: 7.0
 Effluent pH: 7.5
 Effluent Temperature (°C): 18

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-109	43,936	0.0
W-262	0	0.0
W-404	1,243,780	41.6
W-408	375,760	9.6
W-415	1,461,840	39.4
W-457	812,288	21.2
W-518	174,840	4.6
W-522	531,648	15.9
W-605	324,240	8.3
W-614	412,808	10.7
W-712	245,088	6.5
W-714	311,868	8.3
W-903	547,704	13.4
W-904	1,233,824	31.3
W-1001	157,976	4.2
W-1004	428,948	11.5
W-1009	912,704	24.1
Total:	<u>9,219,252</u>	<u>250.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>4,435,352</u>

Self-Monitoring Report (cont'd)
LLNL Treatment Facility A (TFA)
AREA TFA

Arroyo Seco

TFG-ASW

4,783,900

6. Comments:

Down 11-4-12 due to Radio Comms Fault. Restarted 11-5-12. Down 11-7-12 due to Radio Comms Fault. Restarted 11-8-12. Down 11-8-12 due to Radio Comms Fault. Restarted 11-9-12. Down 11-18-12 due to W-904 Leak Fault. Restarted 11-19-12. Down 11-30-12 due to W-903/W-904 Leak Faults.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____

Steve Kawano

Date: 12-03-2012

Self-Monitoring Report

LLNL Treatment Facility A (TFA)

AREA TFA

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 318

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-10-2012
 Influent pH: 7.0
 Effluent pH: 7.5
 Effluent Temperature (°C): 18.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-109	0	0.0
W-262	0	0.0
W-404	575,267	32.9
W-408	196,464	11.3
W-415	761,264	41.2
W-457	172,552	25.7
W-518	87,852	4.8
W-522	286,784	15.1
W-605	130,540	8.7
W-614	208,384	11.1
W-712	120,019	6.8
W-714	153,921	8.3
W-903	286,104	15.6
W-904	634,240	0.0
W-1001	77,290	4.2
W-1004	214,536	11.4
W-1009	458,128	24.4
Total:	<u>4,363,345</u>	<u>221.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,092,845</u>

Self-Monitoring Report (cont'd)
LLNL Treatment Facility A (TFA)
AREA TFA

Arroyo Seco

TFG-ASW

2,270,500

6. Comments:

Started system on 11-30-12. System down on 11-30-12 due to flooded vaults.
Restarted on 12-7-12. W-904 not started. System down on 12-8-12 due to power surge. Restarted on 12-10-12. Restarted W-904. W-457 did not start. Restarted W-457 on 12-19-12. Facility down on 12-20-12 for interlock check. Restarted on 12-21-12. W-605 did not start due to level transducer failure. Facility down on 12-22-12 due to flooded vaults. Restarted on 12-27-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____

Scott Kavanagh

Date: 01-03-2013

Self-Monitoring Report
LLNL Solar Treatment Unit 06 (STU06)
AREA TFA-E

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 257

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-01-2012
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 19.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-254	7,198	0.5
Total:	<u>7,198</u>	<u>0.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>7,198</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 11-02-2012

Self-Monitoring Report
LLNL Solar Treatment Unit 06 (STU06)
AREA TFA-E

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): 16

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-06-2012
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 17.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-254	640	0.5
Total:	<u>640</u>	<u>0.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>640</u>

6. Comments:

System secured on 11-1-12 for recovery. Restarted on 11-5-12. System secured on 11-30-12 due to lack of water.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 12-03-2012

Self-Monitoring Report
LLNL Solar Treatment Unit 06 (STU06)
AREA TFA-E

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-254	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>0</u>

6. Comments:

Facility secured due to lack of water in extraction well.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 12-28-2012

Self-Monitoring Report LLNL Treatment Facility B (TFB) AREA TFB

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
 October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 752

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-02-2012
 Influent pH: 7.0
 Effluent pH: 7.5
 Effluent Temperature (°C): 19

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	356,240	8.1
W-610	232,044	5.8
W-620	252,100	5.5
W-621	108	0.0
W-655	166	0.0
W-704	732,940	16.9
W-1423	220,908	4.8
W-2501	727,800	16.4
W-2502	215,210	4.8
Total:	<u>2,737,516</u>	<u>62.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,737,516</u>

6. Comments:

W-610 pump replaced and started on 10-2-12. System down on 10-13-12 due to low air stripper flow fault. Restarted on 10-15-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility B (TFB)
AREA TFB

Operator Signature: Scott Kawaguchi Date: 11-06-2012

**Land Observation Report date:
TFB-R002 - West Perimeter Drainage Channel**

1. Reporting Period: Business Month October Year 2012

2. Date compliance sampling performed 10-02-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>21.99</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>3/ SSE</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-07-2012

Self-Monitoring Report
LLNL Treatment Facility B (TFB)
AREA TFB

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 704

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-01-2012
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 18.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	327,832	7.8
W-610	254,960	5.8
W-620	225,800	5.7
W-621	0	0.0
W-655	0	0.0
W-704	632,600	16.7
W-1423	212,548	4.8
W-2501	674,979	16.2
W-2502	202,065	4.8
Total:	<u>2,530,784</u>	<u>61.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>2,530,784</u>

6. Comments:

Facility went down on 11-4-12 due to low air stripper flow. Restarted on 11-5-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 12-03-2012

Land Observation Report date:
TFB-R002 - West Perimeter Drainage Channel

1. Reporting Period: Business Month November Year 2012

2. Date compliance sampling performed 11-01-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>16.17</u>
6-day total precipitation (in):	<u>0.31</u>
Average wind speed/direction (mph):	<u>3/ SSE</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 12-12-2012

**Self-Monitoring Report
LLNL Treatment Facility B (TFB)
AREA TFB**

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 435

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-11-2012
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 19.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-357	206,120	7.8
W-610	156,388	6.5
W-620	142,000	5.0
W-621	0	0.0
W-655	0	0.0
W-704	420,568	16.1
W-1423	132,088	5.3
W-2501	398,413	15.7
W-2502	126,721	4.8
Total:	<u>1,582,298</u>	<u>61.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>1,582,298</u>

6. Comments:

Facility started on 12-10-12 with wet season hexavalent chromium treatment.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: _____

Shirley K. G. [Signature]

Date: 01-02-2013

Land Observation Report date:
TFB-R002 - West Perimeter Drainage Channel

1. Reporting Period: Business Month December Year 2012

2. Date compliance sampling performed 12-10-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>11.94</u>
6-day total precipitation (in):	<u>0.58</u>
Average wind speed/direction (mph):	<u>2/ SE</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 01-15-2013

**Self-Monitoring Report
LLNL Treatment Facility C (TFC)
AREA TFC**

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 804

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-02-2012
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 20.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	660,080	13.9
W-1015	184,456	4.0
W-1102	187,900	4.2
W-1103	115,808	2.5
W-1104	1,214,736	27.2
W-1116	78,571	1.6
Total:	<u>2,441,551</u>	<u>53.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,441,551</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 11-02-2012

**Land Observation Report date:
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month October Year 2012

2. Date compliance sampling performed 10-02-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>21.99</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>3/ SSE</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawzner Date: 11-07-2012

**Self-Monitoring Report
LLNL Treatment Facility C (TFC)
AREA TFC**

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 726

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-01-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 19.9

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	592,640	13.8
W-1015	164,440	3.7
W-1102	165,798	3.8
W-1103	104,128	2.4
W-1104	1,156,672	26.7
W-1116	70,487	1.6
Total:	<u>2,254,165</u>	<u>52.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,254,165</u>

6. Comments:

Facility secured on 11-30-12. Awaiting installation of resin columns for wet season hexavalent chromium treatment.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Kawaguchi Date: 12-03-2012

**Land Observation Report date:
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month November Year 2012

2. Date compliance sampling performed 11-01-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>16.17</u>
6-day total precipitation (in):	<u>0.31</u>
Average wind speed/direction (mph):	<u>3/ SSE</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-12-2012

**Self-Monitoring Report
LLNL Treatment Facility C (TFC)
AREA TFC**

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **665**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **12-03-2012**
Influent pH: **7.0**
Effluent pH: **7.5**
Effluent Temperature (°C): **17.8**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-701	529,688	13.8
W-1015	154,492	4.0
W-1102	147,436	4.0
W-1103	93,603	2.4
W-1104	1,053,152	26.6
W-1116	66,307	1.6
Total:	<u>2,044,678</u>	<u>52.4</u>

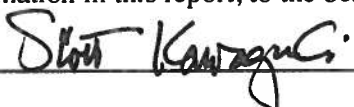
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,044,678</u>

6. Comments:

Wet season hexavalent chromium treatment began on 12-1-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **01-02-2013**

**Land Observation Report date:
TFC-R003 - Arroyo Las Positas**

1. Reporting Period: Business Month December Year 2012

2. Date compliance sampling performed 12-03-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>13.55</u>
6-day total precipitation (in):	<u>2.28</u>
Average wind speed/direction (mph):	<u>5/S</u>

4. Receiving Data:

Sample		
<u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>No</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 01-15-2013

Self-Monitoring Report
LLNL Mini Treatment Unit 1 (MTU1)
AREA TFC-E

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 28 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 693

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-02-2012
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 24.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-368	103,992	2.5
W-413	609,309	14.7
Total:	<u>713,301</u>	<u>17.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>713,301</u>

6. Comments:

Facility was down for wildlife mitigation.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-02-2012

Self-Monitoring Report
LLNL Mini Treatment Unit 1 (MTU1)
AREA TFC-E

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 672

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-07-2012
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 24.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-368	91,582	2.5
W-413	593,618	14.8
Total:	<u>685,200</u>	<u>17.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>685,200</u>

6. Comments:

Facility was down on 11-1-12 for wildlife mitigation.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-04-2012

Self-Monitoring Report
LLNL Mini Treatment Unit 1 (MTU1)
AREA TFC-E

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 598

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-06-2012
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 21.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-368	75,499	2.1
W-413	523,617	14.7
Total:	<u>599,116</u>	<u>16.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>599,116</u>

6. Comments:

Facility was down 12-1 and 12-2 waiting for resin columns to be installed.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Albert V. May Date: 01-02-2013

Self-Monitoring Report
LLNL Portable Treatment Unit 1 (PTU1)
AREA TFC-SE

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 757

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-01-2012
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 20.7

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	177,643	4.0
W-2201	549,698	12.3
Total:	<u>727,341</u>	<u>16.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>727,341</u>

6. Comments:

System down on 10-27-12 due to suspected power failure. Restarted on 10-29-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-02-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 1 (PTU1)
AREA TFC-SE

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 679

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-01-2012
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 21

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	161,370	4.0
W-2201	181,091	12.2
Total:	<u>342,461</u>	<u>16.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>342,461</u>

6. Comments:

W-2201 down on 11-6-12 due to level transducer failure. W-2201 restarted on 11-19-12. Facility down on 11-17-12 due to power failure. Restarted on 11-19-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-03-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 1 (PTU1)
AREA TFC-SE

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 660

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-03-2012

Influent pH: 7.0

Effluent pH: 7.0

Effluent Temperature (°C): 19.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1213	158,040	4.3
W-2201	469,441	11.9
Total:	<u>627,481</u>	<u>16.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>627,481</u>

6. Comments:

Wet season hexavalent chromium treatment began on 12-1-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kaurigan Date: 01-02-2013

Self-Monitoring Report LLNL Treatment Facility D (TFD) AREA TFD

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 803

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-01-2012
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 21.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	56,250	1.3
W-653	4,930	3.0
W-906	30,175	4.4
W-907-2	497,855	10.2
W-2011	13,781	3.0
W-2101	8,883	3.0
W-2102	15,173	3.0
W-1206	592,512	12.4
W-1208	965,069	20.3
Total:	<u>2,184,628</u>	<u>60.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>2,184,628</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>0</u>

6. Comments:

W-906 down on 10-3-12 due to pump failure.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility D (TFD)
AREA TFD

Operator Signature:  Date: 11-05-2012

Self-Monitoring Report

LLNL Treatment Facility D (TFD)

AREA TFD

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): **486**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **11-02-2012**
 Influent pH: **7.0**
 Effluent pH: **7.5**
 Effluent Temperature (°C): **20.2**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	30,730	1.2
W-653	2,957	3.0
W-906	0	0.0
W-907-2	294,760	10.3
W-2011	7,751	3.0
W-2101	5,363	3.0
W-2102	9,325	3.0
W-1206	355,444	12.4
W-1208	578,592	20.1
Total:	<u>1,284,922</u>	<u>56.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,284,922</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>0</u>

6. Comments:

Facility secured on 11-20-12 to repair leak in air stripper tank #2.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility D (TFD)
AREA TFD

Operator Signature: Stu Kawaguchi Date: 11-30-2012

Self-Monitoring Report

LLNL Treatment Facility D (TFD)

AREA TFD

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 30

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 529

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-06-2012

Influent pH: 7.0

Effluent pH: 7.5

Effluent Temperature (°C): 20.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-351	35,014	1.2
W-653	3,351	3.0
W-906	0	0.0
W-907-2	327,968	10.4
W-2011	8,901	3.0
W-2101	6,638	3.0
W-2102	12,251	3.0
W-1206	400,286	13.6
W-1208	642,202	21.0
Total:	<u>1,436,611</u>	<u>58.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,436,611</u>
<u>TFD irrigation supply</u>	<u>TFD-IRR</u>	<u>0</u>

6. Comments:

Air stripper tank leaks repaired. Facility started on 12-6-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL Treatment Facility D (TFD)
AREA TFD

Operator Signature: Steve Kawaguchi Date: 01-02-2013

Self-Monitoring Report
LLNL Portable Treatment Unit 8 (PTU8)
AREA TFD-E

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 28 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 759

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-02-2012
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 23.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2006	1,577	0.0
W-1301	59,684	0.8
W-1303	81,344	1.9
W-1306	20,220	0.4
W-1307	368,248	10.2
W-1550	36,779	0.7
W-2203	15,501	0.3
Total:	<u>583,353</u>	<u>14.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>583,353</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-02-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 8 (PTU8)
AREA TFD-E

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 603

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-07-2012
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 22.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2006	1,219	0.0
W-1301	11,102	0.2
W-1303	74,529	1.9
W-1306	17,132	0.4
W-1307	289,555	7.7
W-1550	29,342	0.7
W-2203	12,947	0.3
Total:	<u>435,826</u>	<u>11.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>435,826</u>

6. Comments:

Facility was down on 11-10 and 11-11 for functional testing of system and ran minimal time on 11-8 and 11-9.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-04-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 8 (PTU8)
AREA TFD-E

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 620

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-06-2012
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 22.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2006	1,014	0.0
W-1301	1	0.0
W-1303	73,354	2.0
W-1306	16,531	0.4
W-1307	264,800	8.0
W-1550	27,575	0.7
W-2203	12,240	0.3
Total:	<u>395,515</u>	<u>11.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>395,515</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 01-02-2013

**Self-Monitoring Report
LLNL Portable Treatment Unit 10 (PTU10)
AREA TFD-HPD**

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 679

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-04-2012
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 21

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	243,245	5.4
Total:	<u>243,245</u>	<u>5.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>243,245</u>

6. Comments:

The facility was shut down at 14:39 on 10-26-12 for the 2012 Arroyo Las Positas Dewatering Program.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Fitch Date: 02-04-2013

Self-Monitoring Report
LLNL Portable Treatment Unit 10 (PTU10)
AREA TFD-HPD

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 683

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-14-2012
Influent pH: 7.5
Effluent pH: 7.6
Effluent Temperature (°C): 18.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	288,987	5.6
Total:	<u>288,987</u>	<u>5.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>288,987</u>

6. Comments:

The facility was restarted at 1010 on 11-2-12 after the 2012 Arroyo Las Positas Dewatering Program was completed.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuhn Date: 12-06-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 10 (PTU10)
AREA TFD-HPD

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 675

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-11-2012
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 14.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1254	255,992	5.4
Total:	<u>255,992</u>	<u>5.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>255,992</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuhn Date: 01-07-2013

**Self-Monitoring Report
LLNL ISB01 (ISB01)
AREA TFD-HPD**

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 772

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1650	694	2.4
W-1653	304	0.6
W-1655	68	2.9
W-1657	2	0.7
Total:	<u>1,068</u>	<u>6.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>ISB01 injection well</u>	<u>W-1552</u>	<u>1,068</u>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system, but was not treated. Approximately 146.45 gals of facility water were diverted to the premixing tote. The facility was down for approximately 20 hours (down from 15:33 on 10/16/12 to 11:34 on 10/17/12), and pumps were not running in the normal run configuration while the premixing tote was being filled.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL ISB01 (ISB01)
AREA TFD-HPD

Operator Signature: Billy Kivil Date: 02-04-2013

Self-Monitoring Report
LLNL ISB01 (ISB01)
AREA TFD-HPD

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 719

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1650	566	2.5
W-1653	135	0.6
W-1655	0	0.0
W-1657	0	0.0
Total:	<u>701</u>	<u>3.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>ISB01 injection well</u>	<u>W-1552</u>	<u>701</u>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system, but was not treated.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy K. Smith Date: 12-14-2012

**Self-Monitoring Report
LLNL ISB01 (ISB01)
AREA TFD-HPD**

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27

Total monthly time facility operated (hours): 394

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1650	340	2.4
W-1653	85	0.3
W-1655	5	2.5
W-1657	0	0.0
Total:	<u>430</u>	<u>5.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>ISB01 injection well</u>	<u>W-1552</u>	<u>430</u>

6. Comments:

Compliance sampling is not required at this facility due to the fact that ISB01 is a closed loop system, and water is not discharged to the environment. Water was circulated through the system, but was not treated. The facility shut down at 08:34 on 12-15-12 due to a high system pressure alarm and was restarted at 09:26 on 12-17-12. The facility shut down at 15:32 on 12-18-12 due to a false flow reading at W-1655. The facility was restarted at 09:40 on 12-20-12 after some electrical repair work was completed. The facility was shut down at 08:37 on 12-21-12 for the Christmas holidays.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Self-Monitoring Report (cont'd)
LLNL ISB01 (ISB01)
AREA TFD-HPD

Operator Signature: Billy Hirtel Date: 01-11-2013

Self-Monitoring Report
LLNL Portable Treatment Unit 2 (PTU2)
AREA TFD-S

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 801

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-05-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 22.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	545,816	11.2
W-1504	368,006	7.5
W-1510	237,672	4.8
Total:	<u>1,151,494</u>	<u>23.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,151,494</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-01-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 2 (PTU2)
AREA TFD-S

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): **728**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **11-07-2012**
Influent pH: **7.0**
Effluent pH: **7.0**
Effluent Temperature (°C): **22.7**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	506,440	12.0
W-1504	70,830	0.0
W-1510	225,794	5.3
Total:	<u>803,064</u>	<u>17.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>803,064</u>

6. Comments:

W-1504 secure for maintenance.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **12-05-2012**

Self-Monitoring Report
LLNL Portable Treatment Unit 2 (PTU2)
AREA TFD-S

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** 26 27 28

Total monthly time facility operated (hours): **575**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **12-07-2012**
Influent pH: **7.0**
Effluent pH: **7.0**
Effluent Temperature (°C): **22.6**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1503	384,472	11.3
W-1504	61,272	0.0
W-1510	51,900	5.1
Total:	<u>497,644</u>	<u>16.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>497,644</u>

6. Comments:

System secure from 12/25/12 through 12/28/12 for discharge pump control repairs.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **01-03-2013**

Self-Monitoring Report
LLNL Portable Treatment Unit 11 (PTU11)
AREA TFD-SE

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 **31**

Total monthly time facility operated (hours): 1

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-31-2012
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 20.8

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	901	15.8
W-2005	310	5.4
W-1308	240	4.2
W-1403	289	4.4
W-1904	0	0.0
SIP-ETC-201	0	0.0
Total:	<u>1,740</u>	<u>29.8</u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,740</u>

6. Comments:

First day of operations after REVAL.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-05-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 11 (PTU11)
AREA TFD-SE

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 498

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-01-2012
Influent pH: 7.0
Effluent pH: 7.5
Effluent Temperature (°C): 20.6

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	180,869	6.1
W-2005	63,860	1.9
W-1308	67,844	2.3
W-1403	47,356	1.4
W-1904	0	0.0
SIP-ETC-201	0	0.0
Total:	<u>359,929</u>	<u>11.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>359,929</u>

6. Comments:

Ran day operations only until 11-12, then went to 24 hour operations.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-04-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 11 (PTU11)
AREA TFD-SE

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **672**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **12-06-2012**
Influent pH: **7.0**
Effluent pH: **7.5**
Effluent Temperature (°C): **21.1**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-314	235,448	6.6
W-2005	73,609	1.9
W-1308	89,032	2.3
W-1403	54,512	1.4
W-1904	0	0.0
SIP-ETC-201	0	0.0
Total:	<u>452,601</u>	<u>12.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>452,601</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **01-02-2013**

Self-Monitoring Report
LLNL Portable Treatment Unit 12 (PTU12)
AREA TFD-SS

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 801

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-04-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 20.1

4. Wellfield Data:

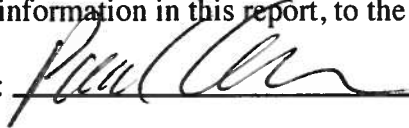
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	316,455	6.6
W-1601	44,636	0.9
W-1602	186,059	3.8
W-1603	615,825	13.0
Total:	<u>1,162,975</u>	<u>24.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,162,975</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-01-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 12 (PTU12)
AREA TFD-SS

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): 729

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-07-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 20.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	288,751	6.6
W-1601	42,308	1.0
W-1602	168,943	3.9
W-1603	586,490	13.8
Total:	<u>1,086,492</u>	<u>25.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,086,492</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-05-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 12 (PTU12)
AREA TFD-SS

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December **01** **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28**

Total monthly time facility operated (hours): **677**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **12-07-2012**
Influent pH: **7.0**
Effluent pH: **7.0**
Effluent Temperature (°C): **20.1**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1523	269,105	6.7
W-1601	40,648	1.0
W-1602	156,733	3.9
W-1603	548,599	13.7
Total:	<u>1,015,085</u>	<u>25.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,015,085</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **01-03-2013**

Self-Monitoring Report
LLNL Portable Treatment Unit 6 (PTU6)
AREA TFD-W

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 679

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-04-2012
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 22.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	398,991	10.1
W-1216	402,523	10.0
W-1902	729,535	18.2
Total:	<u>1,531,049</u>	<u>38.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,531,049</u>

6. Comments:

W-1215 was shut down at 0924 on 10-16-12 for well head maintenance and was restarted at 0830 on 10-17-12. The facility was shut down at 1327 on 10-26-12 for the 2012 Arroyo Las Positas Dewatering Project.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy K. Hall Date: 11-12-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 6 (PTU6)
AREA TFD-W

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 683

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-13-2012
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 21.6

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	406,742	10.0
W-1216	406,361	10.1
W-1902	726,494	18.0
Total:	<u>1,539,597</u>	<u>38.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,539,597</u>

6. Comments:

The facility was restarted at 1028 on 11-2-12 after the 2012 Arroyo Las Positas Dewatering Program was completed.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuhn Date: 12-06-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 6 (PTU6)
AREA TFD-W

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 625

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-11-2012
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 20.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1215	377,581	10.2
W-1216	375,236	10.1
W-1902	663,757	18.1
Total:	<u>1,416,574</u>	<u>38.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>1,416,574</u>

6. Comments:

The facility shut down at 15:38 on 12-15-12 due to air stripper low pressure and was restarted at 09:48 on 12-17-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy K. Smith Date: 01-30-2013

Self-Monitoring Report

LLNL Vapor Extraction System 11 (VES11)

AREA VTFD-ETCS

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treatment facility operated

September	29	30																														
October	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15																	
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31																

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	0	0.0	0	0	0
W-ETC-2003	0	0.0	0	0	0
W-ETC-2004A	0	0.0	0	0	0
W-ETC-2004B	0	0.0	0	0	0
SIP-ETC-201	0	0.0	0	0	0
<hr/>					
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

Discovered facility shutdown 8/21/12. EE team evaluation revealed unit has experienced possible motor failure, investigation is ongoing.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **11-08-2012**

Self-Monitoring Report

LLNL Vapor Extraction System 11 (VES11)

AREA VTFD-ETCS

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treatment facility operated

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	0	0.0	0	0	0
W-ETC-2003	0	0.0	0	0	0
W-ETC-2004A	0	0.0	0	0	0
W-ETC-2004B	0	0.0	0	0	0
SIP-ETC-201	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

Facility did not operate during reporting due to failure of vacuum unit on 8/21/12

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 12-13-2012

Self-Monitoring Report

LLNL Vapor Extraction System 11 (VES11)

AREA VTFD-ETCS

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treatment facility operated

November 30

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1904	72	0.0	0	0	1
W-ETC-2003	522,578	21.1	-1.9	58	443
W-ETC-2004A	113,374	5.1	-4.67	58	443
W-ETC-2004B	505,538	20.0	-3.97	58	443
SIP-ETC-201	16	0.0	0	0	0
Total:	<u>1,141,578</u>	<u>46.2</u>			

4. Comments:

Operations commenced at this facility 12/6/12 following replacement of 15HP unit that failed 8/21/12. Due to efforts to optimize facility and wellfield operation, calculated monthly volume compared to facility flow rate entered on this report may not correlate.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 01-09-2013

Self-Monitoring Report

LLNL Vapor Extraction System 13 (VES13)

AREA VTFD-HS

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treatment facility operated

September	27	28	29	30											
October	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-653	0	0.0	0	0	0
W-2011	0	0.0	0	0	0
W-2101	0	0.0	0	0	0
W-2102	0	0.0	0	0	0
<hr/>					
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

System did not operate during this period.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 10-30-2012

Self-Monitoring Report

LLNL Vapor Extraction System 13 (VES13)

AREA VTFD-HS

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treatment facility operated

October	30	31																		
November	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15					
	16	17	18	19	20	21	22	23	24	25	26	27	28	29						

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-653	0	0.0	0	0	0
W-2011	0	0.0	0	0	0
W-2101	0	0.0	0	0	0
W-2102	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

System did not operate during this period.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-30-2012

Self-Monitoring Report
LLNL Vapor Extraction System 13 (VES13)
AREA VTFD-HS

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treatment facility operated

November 30

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-653	0	0.0	0	0	0
W-2011	0	0.0	0	0	0
W-2101	0	0.0	0	0	0
W-2102	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

System did not operate during this period.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-28-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 3 (PTU3)
AREA TFE-E

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 803

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-01-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 21.5

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	400,798	8.4
W-1109	53,827	1.1
W-1903	17,277	0.3
W-1909	0	0.0
W-2305	0	0.0
Total:	<u>471,902</u>	<u>9.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>471,902</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Sam Thomas* Date: 11-08-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 3 (PTU3)
AREA TFE-E

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 708

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-05-2012

Influent pH: 7.0

Effluent pH: 7.0

Effluent Temperature (°C): 21.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	351,429	8.1
W-1109	45,278	1.1
W-1903	12,558	0.0
W-1909	0	0.0
W-2305	744	0.5
Total:	<u>410,009</u>	<u>9.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>410,009</u>

6. Comments:

Facility secured 11/1 at 13:46 hrs. to conduct interlock checks. Facility was restarted 11/1 at 15:46 hrs.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Sam Thomas* Date: 12-05-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 3 (PTU3)
AREA TFE-E

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 30
December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27

Total monthly time facility operated (hours): 519

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-04-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 20.7

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-566	259,419	8.6
W-1109	35,485	1.1
W-1903	19,931	0.8
W-1909	0	0.0
W-2305	0	0.0
Total:	<u>314,835</u>	<u>10.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>314,835</u>

6. Comments:

Facility shutdown 11/30/12 as a result of rainwater inundating well vault and activating leak detection alarm. Facility was restarted 12/3/12. Facility was secured 12/18/12 for removal of vegetation and sediment from BLDG. 438 drainage ditch. Facility was restarted 12/21/12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **01-02-2013**

Self-Monitoring Report
LLNL GAC Treatment Unit 07 (GTU07)
AREA TFE-HS

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 79

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-04-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 27

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2105	443	1.8
Total:	<u>443</u>	<u>1.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>443</u>

6. Comments:

GTU07/W-2105 secured 10/02/12 to 10/04/12 to increase drawdown for collection of monthly compliance samples. W-2105 utilizes vacuum-enhanced groundwater extraction combined with cyclic pump operation. Therefore constant flow rate and hours of operation may not correspond.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 11-15-2012

Self-Monitoring Report
LLNL GAC Treatment Unit 07 (GTU07)
AREA TFE-HS

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 680

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-06-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 22.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2105	361	0.7
Total:	<u>361</u>	<u>0.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>361</u>

6. Comments:

GTU07/W-2105 secured 11/05/12 to 11/06/12 to increase drawdown for collection of monthly compliance samples. W-2105 utilizes vacuum-enhanced groundwater extraction combined with cyclic pump operation. Constant flow rate and hours of operation may not correspond.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-05-2012

Self-Monitoring Report
LLNL GAC Treatment Unit 07 (GTU07)
AREA TFE-HS

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 30

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18

Total monthly time facility operated (hours): 436

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-04-2012

Influent pH: 7.0

Effluent pH: 7.0

Effluent Temperature (°C): 13

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-2105	219	0.7
Total:	<u>219</u>	<u>0.7</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>219</u>

6. Comments:

Facility secured 12/18/12 as requested by LLNL wildlife biologist to perform vegetation and sediment removal from the BLDG. 438 drainage ditch.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 01-04-2013

Self-Monitoring Report
LLNL Portable Treatment Unit 9 (PTU9)
AREA TFE-NW

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 487

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-05-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 22

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	184,167	6.4
W-1409	51,151	1.8
Total:	<u>235,318</u>	<u>8.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>235,318</u>

6. Comments:

System secure from 10/18/12 through month end for REVAL work and invasive species control.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-01-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 9 (PTU9)
AREA TFE-NW

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 326

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-09-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 22

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	117,377	6.3
W-1409	36,784	1.9
Total:	<u>154,161</u>	<u>8.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>154,161</u>

6. Comments:

System secure from 10/18/12 to 11/8/12 for REVAL and maintenance work.
11/8,9/12 T & V day operations only. System secure 11/9/12 to 11/15/12 for
maintenance. System secure from 11/17/12 to 11/19/12 due to power
interruption.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-05-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 9 (PTU9)
AREA TFE-NW

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 585

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-12-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 21.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1211	246,812	7.4
W-1409	41,143	3.1
Total:	<u>287,955</u>	<u>10.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>287,955</u>

6. Comments:

System secure from 11/30/12 to 12/3/12 in preparation for post-REVAL treatment facility startup hydraulic testing.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 01-03-2013

Self-Monitoring Report
LLNL Mini Treatment Unit 04 (MTU04)
AREA TFE-SE

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 791

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-01-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 20.3

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-359	393,485	8.3
Total:	<u>393,485</u>	<u>8.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>393,485</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 11-08-2012

Self-Monitoring Report
LLNL Mini Treatment Unit 04 (MTU04)
AREA TFE-SE

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29

Total monthly time facility operated (hours): 694

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-05-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 22.2

4. Wellfield Data:


<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-359	345,225	8.2
Total:	<u>345,225</u>	<u>8.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>345,225</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-05-2012

Self-Monitoring Report
LLNL Mini Treatment Unit 04 (MTU04)
AREA TFE-SE

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 30
December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27

Total monthly time facility operated (hours): 600

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-04-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 20.3

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-359	300,800	8.3
Total:	<u>300,800</u>	<u>8.3</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>300,800</u>

6. Comments:

Facility secured 12/18/12 @ 10:15 in support of efforts to remove sediment and vegetation from the BLDG. 438 drainage ditch. Facility was restarted 12/21/12 @ 08:17. Facility was shutdown 12/26/12 at 08:55 to repair leak on system backflow regulator. Facility was restarted at 09:10.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Sam Morris* Date: **01-02-2013**

Self-Monitoring Report
LLNL Mini Treatment Unit 03 (MTU03)
AREA TFE-SW

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 784

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-03-2012
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 27.7

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1518	26,915	0.5
W-1520	26	1.2
W-1522	43	1.7
Total:	<u>26,984</u>	<u>3.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>26,984</u>

6. Comments:
NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy K. Kild Date: 11-12-2012

Self-Monitoring Report
LLNL Mini Treatment Unit 03 (MTU03)
AREA TFE-SW

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 720

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-13-2012
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 17.7

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1518	23,363	0.5
W-1520	0	0.0
W-1522	0	0.0
Total:	<u>23,363</u>	<u>0.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>23,363</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy F. Smith Date: 12-06-2012

Self-Monitoring Report
LLNL Mini Treatment Unit 03 (MTU03)
AREA TFE-SW

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27

Total monthly time facility operated (hours): 454

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-11-2012
Influent pH: 7.4
Effluent pH: 7.5
Effluent Temperature (°C): 19.7

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1518	14,259	0.5
W-1520	0	0.0
W-1522	0	0.0
Total:	<u>14,259</u>	<u>0.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>14,259</u>

6. Comments:

The facility was shut down at 1018 on 12-18-12 for ditch maintenance and was restarted at 1035 on 12-21-12. The facility shut down at 1438 on 12-21-12 and was restarted at 1030 on 12-26-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy K. Smith Date: 01-07-2013

Self-Monitoring Report
LLNL Mini Treatment Unit 05 (MTU05)
AREA TFE-W

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 646

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-03-2012
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 22

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-292	214,770	5.7
W-305	480,700	11.9
Total:	<u>695,470</u>	<u>17.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>695,470</u>

6. Comments:

The facility was shutdown at 13:40 on 10-10-12 to replace the cuno filter elements. The facility was restarted at 11:40 on 10-11-12. The facility was shut down at 14:03 on 10-26-12 for the 2012 Arroyo Las Positas Dewatering Program.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuhl Date: 01-30-2013

Self-Monitoring Report
LLNL Mini Treatment Unit 05 (MTU05)
AREA TFE-W

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): **548**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **11-13-2012**
Influent pH: **7.5**
Effluent pH: **7.5**
Effluent Temperature (°C): **19.1**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-292	200,662	6.0
W-305	459,461	14.0
Total:	<u>660,123</u>	<u>20.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>660,123</u>

6. Comments:

The facility was restarted at 0923 on 11-6-12 after the 2012 Arroyo Las Positas Dewatering Program had been completed and the air stripper had been serviced. The facility shut down at approximately 0800 on 11-7-12 due to a power shutdown at B439 that affected MTU05. The facility was restarted at 1358 on 11-8-12 after an OTPO battery was changed in the controller.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Billy Kuhl* Date: **12-06-2012**

Self-Monitoring Report
LLNL Mini Treatment Unit 05 (MTU05)
AREA TFE-W

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27

Total monthly time facility operated (hours): 570

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-11-2012
Influent pH: 7.4
Effluent pH: 7.5
Effluent Temperature (°C): 20.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-292	207,849	6.1
W-305	480,343	13.9
Total:	<u>688,192</u>	<u>20.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>688,192</u>

6. Comments:

The facility shut down at 00:16 on 12-14-12 due to facility high air pressure and was restarted at 10:40 on 12-14-12. The facility shut down at 23:41 on 12-14-12 due to facility high air pressure and was restarted at 13:27 on 12-17-12.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuld Date: 01-30-2013

Self-Monitoring Report

LLNL Vapor Extraction System 16 (VES16)

AREA VTFE-ELM

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treatment facility operated

September 29 30
 October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1903	73,088	1.5	-18.65	72	790
W-1909	51	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-001	68	0.0	0	0	0
W-543-003	1,023,262	21.3	-1	72	790
W-543-1908	0	0.0	0	0	0
Total:	<u>1,096,469</u>	<u>22.8</u>			

4. Comments:

Quarterly vapor samples collected from operating and idle extraction wells
 10/29/12.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-08-2012

Self-Monitoring Report

LLNL Vapor Extraction System 16 (VES16)

AREA VTFE-ELM

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treatment facility operated

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1903	47,348	1.3	-15.2	72	571
W-1909	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-001	0	0.0	0	0	0
W-543-003	739,979	21.4	-1	72	571
W-543-1908	0	0.0	0	0	0
Total:	<u>787,327</u>	<u>22.8</u>			

4. Comments:

Facility secured 10/31/12 at 07:20 hrs to repair W-1903 air heater coil. Facility was restarted 11/5/12 at 11:25.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 12-05-2012

Self-Monitoring Report

LLNL Vapor Extraction System 16 (VES16)

AREA VTFE-ELM

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treatment facility operated

November 30
 December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27


3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1903	52,051	1.9	-18.18	80	516
W-1909	0	0.0	0	0	0
W-2305	0	0.0	0	0	0
W-543-001	0	0.0	0	0	0
W-543-003	637,040	20.6	-1.5	80	516
W-543-1908	0	0.0	0	0	0
Total:	<u>689,091</u>	<u>22.4</u>			

4. Comments:

Facility shutdown 11/30 due to PTU 3/W-1109 leak detection interlock. Facility was restarted 12/03/12 at 08:15 and secured at 09:35 for wellfield maintenance. Facility operations resumed 12/4 at 11:30. Facility was secured 12/18/12 due to efforts to remove sediment and vegetation from the BLDG 438 drainage ditch. Facility was restarted 12/21/12.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 01-02-2013

Self-Monitoring Report

LLNL Vapor Extraction System 12 (VES12)

AREA VTFE-HS

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treatment facility operated

September 29 30
 October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

Source	Monthly Volume(cu. ft)	Instantaneous Flow Rate(scfm)	P(in. Hg)	T(°F)	Hours of Op.
W-2105	66,633	1.6	-10.35	80	800
W-ETS-2008A	197	0.0	0	0	0
W-ETS-2008B	771,319	19.2	-9.61	80	800
W-ETS-2009	83	0.0	0	0	0
W-ETS-2010A	193	0.0	0	0	0
W-ETS-2010B	166	0.0	0	0	0
Total:	<u>838,591</u>	<u>20.8</u>			

4. Comments:

Quarterly samples collected from operating and idle vapor extraction wells
 10/29/12.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-15-2012

Self-Monitoring Report

LLNL Vapor Extraction System 12 (VES12)

AREA VTFE-HS

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treatment facility operated


November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2105	63,473	1.6	-9.9	66	704
W-ETS-2008A	0	0.0	0	0	0
W-ETS-2008B	854,215	20.0	-9.27	66	704
W-ETS-2009	0	0.0	0	0	0
W-ETS-2010A	0	0.0	0	0	0
W-ETS-2010B	0	0.0	0	0	0
Total:	<u>917,688</u>	<u>21.6</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-05-2012

Self-Monitoring Report

LLNL Vapor Extraction System 12 (VES12)

AREA VTFE-HS

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treatment facility operated

November 30
 December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2105	53,469	1.3	-7.75	69	678
W-ETS-2008A	0	0.0	0	0	0
W-ETS-2008B	807,391	19.1	-7.31	69	678
W-ETS-2009	0	0.0	0	0	0
W-ETS-2010A	0	0.0	0	0	0
W-ETS-2010B	0	0.0	0	0	0
Total:	<u>860,860</u>	<u>20.4</u>			

4. Comments:

Facility secured 12/13/12 at 11:06, restarted 11:26 to remove water from condensate knockout. Facility secured 12/20/12 at 11:31, restarted 11:37 to remove water from condensate knockout.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 01-04-2013

Self-Monitoring Report
LLNL GAC Treatment Unit 01 (GTU01)
AREA TFG-1

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 787

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-04-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 21.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	242,653	5.2
Total:	<u>242,653</u>	<u>5.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>242,653</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-01-2012

Land Observation Report date:
TFG-ASW - Arroyo Seco

1. Reporting Period: Business Month October Year 2012

2. Date compliance sampling performed 10-04-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>22.02</u>
6-day total precipitation (in):	<u>0.00</u>
Average wind speed/direction (mph):	<u>3/ S</u>

4. Receiving Data:

Sample <u>Location</u>	<u>pH</u>	<u>Temperature (C)</u>
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-05-2012

Self-Monitoring Report
LLNL GAC Treatment Unit 01 (GTU01)
AREA TFG-1

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 718

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-09-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 21

4. Wellfield Data:

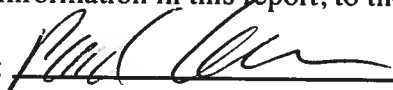
<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	220,191	5.1
Total:	<u>220,191</u>	<u>5.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>220,191</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-05-2012

Land Observation Report date:
TFG-ASW - Arroyo Seco

1. Reporting Period: Business Month November Year 2012

2. Date compliance sampling performed 11-09-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>14.31</u>
6-day total precipitation (in):	<u>0.16</u>
Average wind speed/direction (mph):	<u>4/ SSE</u>

4. Receiving Data:

Sample Location	pH	Temperature (C)
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 01-03-2013

Self-Monitoring Report
LLNL GAC Treatment Unit 01 (GTU01)
AREA TFG-1

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 668

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-06-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 20.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1111	203,850	5.0
Total:	<u>203,850</u>	<u>5.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Seco</u>	<u>TFG-ASW</u>	<u>203,850</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 01-03-2013

Land Observation Report date:
TFG-ASW - Arroyo Seco

1. Reporting Period: Business Month December Year 2012

2. Date compliance sampling performed 12-06-2012

3. Weather Conditions:

Average air tempertaure (°C):	<u>13.53</u>
6-day total precipitation (in):	<u>2.83</u>
Average wind speed/direction (mph):	<u>4/ S</u>

4. Receiving Data:

Sample Location	pH	Temperature (C)
<u>Receiving Water</u>	<u>N/M</u>	<u>N/M</u>

5. Land Observations, as "Yes" or "No", for reporting month:

<u>Visual Observations</u>	<u>Effluent</u>	<u>Receiving Water</u>
Floating and Suspended Materials of Waste Origin	<u>No</u>	<u>No</u>
Odor	<u>No</u>	<u>No</u>
Discoloration and Turbidity	Not Required	<u>No</u>
Evidence of Beneficial Water Use	Not Required	<u>N/A</u>

6. Comments:

7. I certify that the information in this report to the best of my knowledge, is true and correct.

Operator Signature:  Date: 01-24-2013

Self-Monitoring Report
LLNL Mini Treatment Unit 02 (MTU02)
AREA TFG-N

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 683

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-04-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 21.3

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1806	88,886	2.2
W-1807	158,820	4.0
Total:	<u>247,706</u>	<u>6.1</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>247,706</u>

6. Comments:

System secure from 10/26/12 through month end for invasive species control.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **11-01-2012**

Self-Monitoring Report
LLNL Mini Treatment Unit 02 (MTU02)
AREA TFG-N

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 680

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-09-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 21.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1806	90,865	2.6
W-1807	172,750	4.4
Total:	<u>263,615</u>	<u>7.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>263,615</u>

6. Comments:

System secure from 10/26/12 to 11/2/12 for invasive species control.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-05-2012

Self-Monitoring Report
LLNL Mini Treatment Unit 02 (MTU02)
AREA TFG-N

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 678

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-06-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 21.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1806	82,713	2.0
W-1807	168,063	4.2
Total:	<u>250,776</u>	<u>6.2</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>250,776</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 01-03-2013

Self-Monitoring Report
LLNL Portable Treatment Unit 5 (PTU5)
AREA TF406

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 679

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-03-2012
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 23.7

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	105	4.5
W-1310	395,141	9.9
Total:	<u>395,246</u>	<u>14.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>395,246</u>

6. Comments:

The facility was shut down at 1341 on 10-26-12 for 2012 Arroyo Las Positas Dewatering Program.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kish Date: 11-12-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 5 (PTU5)
AREA TF406

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 681

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-13-2012
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 21

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	0	0.0
W-1310	401,828	10.0
Total:	<u>401,828</u>	<u>10.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>401,828</u>

6. Comments:

The facility was restarted at 1330 on 11-2-12 after the 2012 Arroyo Las Positas Dewatering Program had been completed.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuntz Date: 12-06-2012

Self-Monitoring Report
LLNL Portable Treatment Unit 5 (PTU5)
AREA TF406

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 673

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-11-2012
Influent pH: 7.5
Effluent pH: 7.5
Effluent Temperature (°C): 21.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1309	0	0.0
W-1310	393,502	10.0
Total:	<u>393,502</u>	<u>10.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>393,502</u>

6. Comments:

NA

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Korda Date: 01-07-2013

Self-Monitoring Report
LLNL GAC Treatment Unit 03 (GTU03)
AREA TF406-NW

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 450

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-10-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 22.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	120,916	4.6
Total:	<u>120,916</u>	<u>4.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>120,916</u>

6. Comments:

System secure 9/26/2012 to 10/5/12 to treat iron bacteria fouling in W-1801.
System down from 10/6/12 to 10/8/12 due to low flow alarm. System secure
from 10/26/12 through month end for invasive species control.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-01-2012

Self-Monitoring Report
LLNL GAC Treatment Unit 03 (GTU03)
AREA TF406-NW

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 **02** **03** **04** **05** **06** **07** **08** **09** **10** **11** **12** **13** **14** **15**
16 **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30**

Total monthly time facility operated (hours): **671**

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): **11-07-2012**
Influent pH: **7.0**
Effluent pH: **7.0**
Effluent Temperature (°C): **22.5**

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	185,359	4.6
Total:	<u>185,359</u>	<u>4.6</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>185,359</u>

6. Comments:

System secure from 10/26/12 to 11/2/12 for invasive species control.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **12-05-2012**

Self-Monitoring Report
LLNL GAC Treatment Unit 03 (GTU03)
AREA TF406-NW

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 667

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-06-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 22.6

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1801	171,429	4.4
Total:	<u>171,429</u>	<u>4.4</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>171,429</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 01-03-2013

**Self-Monitoring Report
LLNL Solar Treatment Unit 09 (STU09)
AREA TF518-N**

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September	27	28	29	30															
October	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29					

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1410	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Scott Kawaguchi Date: 10-30-2012

Self-Monitoring Report
LLNL Solar Treatment Unit 09 (STU09)
AREA TF518-N

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

October	30	31																	
November	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	16	17	18	19	20	21	22	23	24	25	26	27	28	29					

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1410	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Shirley Kawaguchi Date: 11-30-2012

Self-Monitoring Report
LLNL Solar Treatment Unit 09 (STU09)
AREA TF518-N

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 30
December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1410	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>0</u>

6. Comments:

This treatment facility was shut down on 2-20-08 due to elevated tritium activities in the facility influent. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Steve Karaguzi Date: 12-28-2012

Self-Monitoring Report
LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
AREA TF518-PZ

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 792

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1615	110	0.0
W-518-1913	0	0.0
W-518-1914	0	0.0
W-518-1915	26	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	<u>136</u>	<u>0.0</u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>136</u>

6. Comments:

Water compliance sampling is not required at this facility, water is transferred to and treated at TFB main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **11-20-2012**

Self-Monitoring Report
LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
AREA TF518-PZ

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 722

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1615	78	0.0
W-518-1913	0	0.0
W-518-1914	0	0.0
W-518-1915	22	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	<u>100</u>	<u>0.0</u>

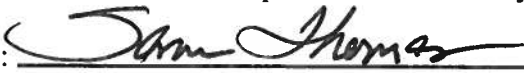
5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>100</u>

6. Comments:

Water compliance sampling is not required at this facility, water is transferred to and treated at TFB main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-05-2012

Self-Monitoring Report
LLNL Treatment Facility 518-HDTANK (TF518-HDTANK)
AREA TF518-PZ

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21

Total monthly time facility operated (hours): 503

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1615	60	0.0
W-518-1913	0	0.0
W-518-1914	0	0.0
W-518-1915	28	0.0
SVB-518-201	0	0.0
SVB-518-204	0	0.0
Total:	<u>88</u>	<u>0.0</u>


5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>West Perimeter Drainage Channel</u>	<u>TFB-R002</u>	<u>88</u>

6. Comments:

Facility operations secured 12/21/12 as a precaution due to anticipated freezing temperatures over holiday week. Monthly compliance sampling is not required at this facility, groundwater is transferred and treated at TFB Main.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **01-04-2013**

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 1 (CRD1)
AREA TF5475-1

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuhn Date: 11-12-2012

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 1 (CRD1)
AREA TF5475-1

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuhn Date: 12-06-2012

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 1 (CRD1)
AREA TF5475-1

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1302-2	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-1 injection</u>	<u>W-1302-1</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 7/27/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Knecht Date: 01-07-2013

Self-Monitoring Report
LLNL GAC Treatment Unit 09 (GTU09)
AREA TF5475-2

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 28 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 780

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 10-02-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 20.4

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	112,926	2.9
W-1415	0	0.0
Total:	<u>112,926</u>	<u>2.9</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>112,926</u>

6. Comments:

Facility was down for carbon change out.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-02-2012

Self-Monitoring Report
LLNL GAC Treatment Unit 09 (GTU09)
AREA TF5475-2

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

Total monthly time facility operated (hours): 710

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 11-07-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 20.2

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	122,024	2.8
W-1415	0	0.0
Total:	<u>122,024</u>	<u>2.8</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>122,024</u>

6. Comments:

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-04-2012

Self-Monitoring Report
LLNL GAC Treatment Unit 09 (GTU09)
AREA TF5475-2

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 586

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): 12-06-2012
Influent pH: 7.0
Effluent pH: 7.0
Effluent Temperature (°C): 20.1

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1108	101,592	2.5
W-1415	0	0.0
Total:	<u>101,592</u>	<u>2.5</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>Arroyo Las Positas</u>	<u>TFC-R003</u>	<u>101,592</u>

6. Comments:

Facility was down on 12-2, 12-3, and 12-4 for carbon change and conditioning.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 01-02-2013

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 2 (CRD2)
AREA TF5475-3

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

September 29 30
October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1604	0	0.0
W-1605	0	0.0
W-1608	0	0.0
W-1609	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy K. Hill Date: 11-12-2012

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 2 (CRD2)
AREA TF5475-3

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

November	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1604	0	0.0
W-1605	0	0.0
W-1608	0	0.0
W-1609	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kubit Date: 12-06-2012

Self-Monitoring Report
LLNL Catalytic Reductive Dehalogenation 2 (CRD2)
AREA TF5475-3

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treated ground water was discharged

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28

Total monthly time facility operated (hours): 0

3. Monthly Compliance Data:

Date compliance sampling performed (m/d/y): Not Measured

Influent pH:

Effluent pH:

Effluent Temperature (°C):

4. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(gal)</u>	<u>Instantaneous Flow Rate(gpm)</u>
W-1604	0	0.0
W-1605	0	0.0
W-1608	0	0.0
W-1609	0	0.0
Total:	<u>0</u>	<u>0.0</u>

5. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>CRD-2 injection</u>	<u>W-1610</u>	<u>0</u>

6. Comments:

The treatment facility was shut down on 8/31/07. The facility will be restarted once a solution for mixed waste generation is implemented.

7. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuhl Date: 01-07-2013

Self-Monitoring Report

LLNL Vapor Extraction System 08 (VES08)

AREA VTF406-HS

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treatment facility operated

September 29 30
 October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-217	788,674	15.3	-2.52	69	800
W-514-2007A	0	0.0	0	0	0
W-514-2007B	393,832	9.7	-2.88	69	800
Total:	<u>1,182,506</u>	<u>24.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-08-2012

Self-Monitoring Report

LLNL Vapor Extraction System 08 (VES08)

AREA VTF406-HS

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treatment facility operated

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-217	608,255	15.1	-2.93	66	701
W-514-2007A	0	0.0	0	0	0
W-514-2007B	454,739	10.9	-3.24	66	701
Total:	<u>1,062,994</u>	<u>26.0</u>			

4. Comments:

End month volumes for extraction wells were calculated from individual flow measurements, and not derived from facility totalizer values.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-13-2012

Self-Monitoring Report

LLNL Vapor Extraction System 08 (VES08)

AREA VTF406-HS

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treatment facility operated

November 30
 December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-217	563,756	14.6	-2.83	65	676
W-514-2007A	0	0.0	0	0	0
W-514-2007B	407,739	10.0	-3.14	65	676
Total:	<u>971,495</u>	<u>24.6</u>			

4. Comments:

End month volumes for extraction wells were calculated from individual flow measurements, and not derived from facility totalizer values.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 01-10-2013

Self-Monitoring Report

LLNL Vapor Extraction System 05 (VES05)

AREA VTF511

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treatment facility operated

September 29 30
 October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2207A	0	0.0	0	0	0
W-2207B	415,542	8.7	-5	78	793
W-2208A	0	0.0	0	0	0
W-2208B	400,899	8.1	-4.6	78	793
Total:	<u>816,441</u>	<u>16.8</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 11-08-2012

Self-Monitoring Report

LLNL Vapor Extraction System 05 (VES05)

AREA VTF511

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treatment facility operated

November 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27 28 29


3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2207A	53	0.0	0	0	0
W-2207B	324,354	7.6	-5.2	62	675
W-2208A	50	0.0	0	0	0
W-2208B	333,823	7.9	-4.6	62	675
Total:	<u>658,280</u>	<u>15.5</u>			

4. Comments:

Quarterly vapor samples collected from idle extraction wells 11/13/12. Facility was secured 11/13/12 11:30 due to concentrations exceeding permit conditions at VES05-CF4I sample port. Filters 037 and CF-038 were removed and Filters 041 and CF-042 were placed in service. Facility was restarted 11/14 at 09:10.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 12-05-2012

Self-Monitoring Report

LLNL Vapor Extraction System 05 (VES05)

AREA VTF511

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treatment facility operated

November 30
 December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
16 17 18 19 20 21 22 23 24 25 26 27

3. Wellfield Data:

<u>Source</u>	<u>Monthly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-2204	0	0.0	0	0	0
W-2205	0	0.0	0	0	0
W-2206	0	0.0	0	0	0
W-2207A	0	0.0	0	0	0
W-2207B	262,287	8.2	-6	60	671
W-2208A	0	0.0	0	0	0
W-2208B	178,240	3.1	-5.3	60	671
Total:	<u>440,527</u>	<u>11.3</u>			

4. Comments:

Facility operations secured 12/10/12 at 09:10 to remove water from sumps.
 Facility was restarted at 11:45. Facility was secured 12/27/12 at 13:20 to remove
 water from sumps. Facility was restarted at 14:24 hrs. Due to condensate
 intermittently disrupting operation of facility instrumentation, extraction well end
 month cumulative volumes entered for reporting month may not be accurate.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 01-04-2013

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month October **Week: 1** Year **2012**

2. Dates (in **bold** and underline) treatment facility operated

September 29 30
October 01 02 03 04 05

3. Wellfield Data:

<u>Source</u>	<u>Weekly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1615	37,236	3.7	-19	54	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	10,064	1.0	-21.5	54	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>47,300</u>	<u>4.7</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Thomas Date: 11-08-2012

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month October **Week: 2** Year **2012**

2. Dates (in **bold** and underline) treatment facility operated

October **06** **07** **08** **09** **10** **11** **12**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	37,536	3.7	-19	52	169
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	10,145	1.0	-21.5	52	169
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>47,681</u>	<u>4.7</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: *Sam Thomas* Date: **11-08-2012**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month October **Week: 3** Year **2012**

2. Dates (in **bold** and underline) treatment facility operated

October **13** **14** **15** **16** **17** **18** **19**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	38,372	3.8	-18	60	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	11,108	1.1	-20.5	60	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>49,480</u>	<u>4.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **11-08-2012**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month October **Week: 4** Year **2012**

2. Dates (in **bold** and underline) treatment facility operated

October **20** **21** **22** **23** **24** **25** **26**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	39,864	4.0	-18.5	50	166
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	9,966	1.0	-21.2	50	166
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>49,830</u>	<u>5.0</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 11-08-2012

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month November **Week: 1** Year **2012**

2. Dates (in **bold** and underline) treatment facility operated

October **27** **28** **29** **30** **31**
November **01** **02**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	39,452	3.9	-18	52	169
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	10,116	1.0	-21	52	169
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0

Total:	<u>49,568</u>	<u>4.9</u>			
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4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **12-05-2012**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month November **Week: 2** Year **2012**

2. Dates (in **bold** and underline) treatment facility operated

November **03** **04** **05** **06** **07** **08** **09**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	39,640	3.9	-18.5	36	169
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	10,164	1.0	-21	36	169
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>49,804</u>	<u>4.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **12-05-2012**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month November **Week: 3** Year **2012**

2. Dates (in **bold** and underline) treatment facility operated

November **10** **11** **12** **13** **14** **15** **16**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	37,976	3.8	-18.5	54	167
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	10,993	1.1	-21	54	167
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>48,969</u>	<u>4.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **12-05-2012**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month November **Week: 4** Year **2012**

2. Dates (in **bold** and underline) treatment facility operated

November **17** **18** **19** **20** **21**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	27,141	3.8	-18.5	54	119
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	7,857	1.1	-21	54	119
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>34,998</u>	<u>4.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **12-05-2012**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month November **Week: 5** Year **2012**

2. Dates (in **bold** and underline) treatment facility operated

November 22 23 24 25 26 27 28 29 30

3. Wellfield Data:

<u>Source</u>	<u>Weekly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1615	50,105	3.8	-18	56	220
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	14,504	1.1	-20.5	56	220
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>64,609</u>	<u>4.9</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Sam Shon Date: 12-05-2012

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month December Week: 1 Year 2012

2. Dates (in **bold** and underline) treatment facility operated

December **01** **02** **03** **04** **05** **06** **07**

3. Wellfield Data:

<u>Source</u>	<u>Weekly</u> <u>Volume(cu. ft)</u>	<u>Instantaneous</u> <u>Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours</u> <u>of Op.</u>
W-1615	37,483	3.8	-19	44	164
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	8,878	0.9	-21.5	44	164
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>46,361</u>	<u>4.7</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 01-04-2013

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month December Week: 2 Year 2012

2. Dates (in **bold** and underline) treatment facility operated

December **08** **09** **10** **11** **12** **13** **14**

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	38,717	3.8	-19	40	170
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	9,170	0.9	-21	40	170
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>47,887</u>	<u>4.7</u>			

4. Comments:

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **01-04-2013**

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month December **Week: 3** Year **2012**

2. Dates (in **bold** and underline) treatment facility operated

December **15** **16** **17** **18** **19** **20** **21**


3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	38,263	3.8	-18.7	50	168
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	9,062	0.9	-21.2	50	168
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>47,325</u>	<u>4.7</u>			

4. Comments:

Facility secured 12/21/12 to protect exposed groundwater piping from anticipated freezing temperatures over extended holiday week.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: 01-04-2013

Self-Monitoring Report
LLNL Vapor Extraction System 19 (VES19)
AREA VTF518-PZ

1. Reporting Period: Business Month December Week: **4** Year **2012**

2. Dates (in **bold** and underline) treatment facility operated

December 22 23 24 25 26 27 28

3. Wellfield Data:

<u>Source</u>	<u>Weekly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-1615	0	0.0	0	0	0
W-518-1913	0	0.0	0	0	0
W-518-1914	0	0.0	0	0	0
W-518-1915	0	0.0	0	0	0
SVB-518-201	0	0.0	0	0	0
SVB-518-204	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Comments:

Facility secured 12/21/12 for freeze protection and did not operate during reporting week.

5. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature:  Date: **01-24-2013**

Self-Monitoring Report

LLNL Vapor Extraction System 01 (VES01)

AREA VTF5475

1. Reporting Period: Business Month October Year 2012

2. Dates (in **bold** and underline) treatment facility operated

September 29 30
 October 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-ETS-507	0	0.0	0	0	0
W-1605	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kuhl Date: 11-12-2012

Self-Monitoring Report

LLNL Vapor Extraction System 01 (VES01)

AREA VTF5475

1. Reporting Period: Business Month November Year 2012

2. Dates (in **bold** and underline) treatment facility operated

November	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-ETS-507	0	0.0	0	0	0
W-1605	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
<hr/>					
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy K. Kuhl Date: 12-06-2012

Self-Monitoring Report

LLNL Vapor Extraction System 01 (VES01)

AREA VTF5475

1. Reporting Period: Business Month December Year 2012

2. Dates (in **bold** and underline) treatment facility operated

December 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15
 16 17 18 19 20 21 22 23 24 25 26 27 28

3. Wellfield Data:

<u>Source</u>	<u>Monthly Volume(cu. ft)</u>	<u>Instantaneous Flow Rate(scfm)</u>	<u>P(in. Hg)</u>	<u>T(°F)</u>	<u>Hours of Op.</u>
W-ETS-507	0	0.0	0	0	0
W-1605	0	0.0	0	0	0
W-1608	0	0.0	0	0	0
W-2211	0	0.0	0	0	0
W-2212	0	0.0	0	0	0
SVI-ETS-504	0	0.0	0	0	0
W-2302	0	0.0	0	0	0
W-2303	0	0.0	0	0	0
Total:	<u>0</u>	<u>0.0</u>			

4. Discharge Information:

<u>Discharge Location</u>	<u>Receiving Water Station</u>	<u>Volume</u>
<u>VTF5475 Vapor Injection Well</u>	<u>SVI-ETS-505</u>	<u>0</u>

5. Comments:

This treatment facility was shut down on 10-12-07 due to a FY2008 funding reduction. The facility will be restarted once a solution for mixed waste generation is implemented.

6. I certify that the information in this report, to the best of my knowledge, is true and correct.

Operator Signature: Billy Kirtch Date: 01-07-2013

Attachment C

Figures

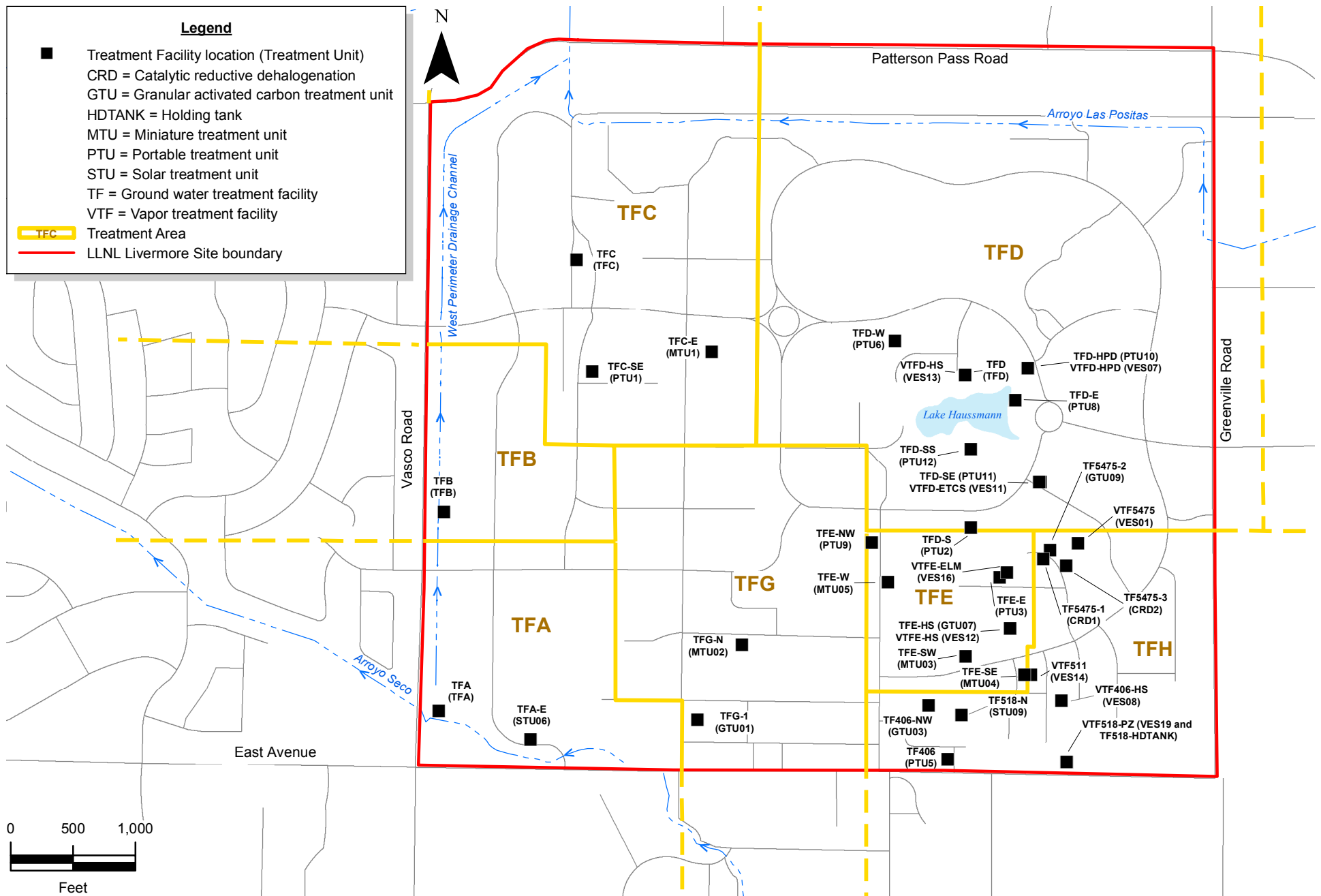


Figure 1. Livermore Site treatment areas and treatment facility locations.

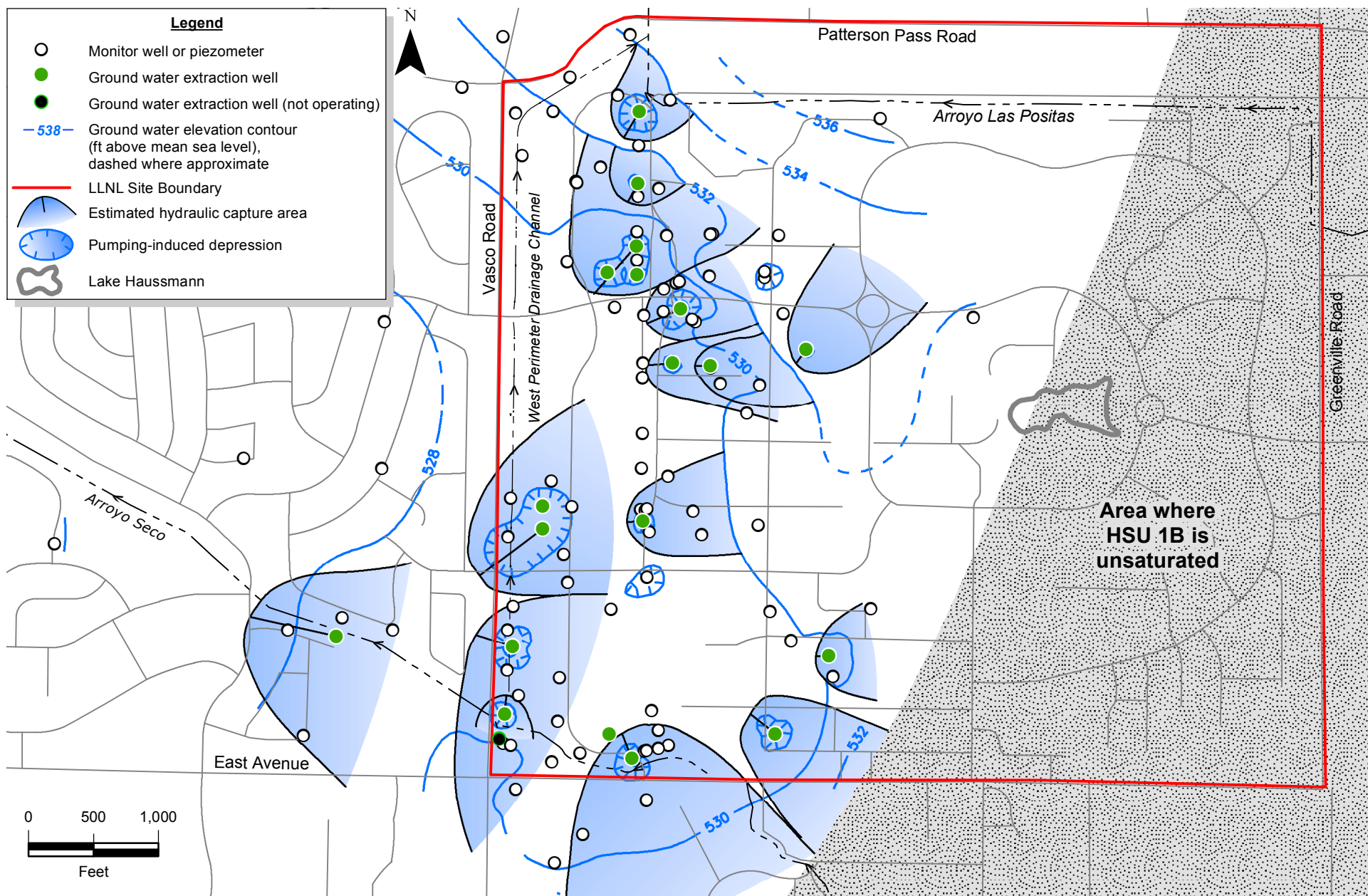


Figure 2. Ground water elevation contour map based on 114 wells completed within HSU-1B showing estimated hydraulic capture areas, LLNL and vicinity, fourth quarter 2012.

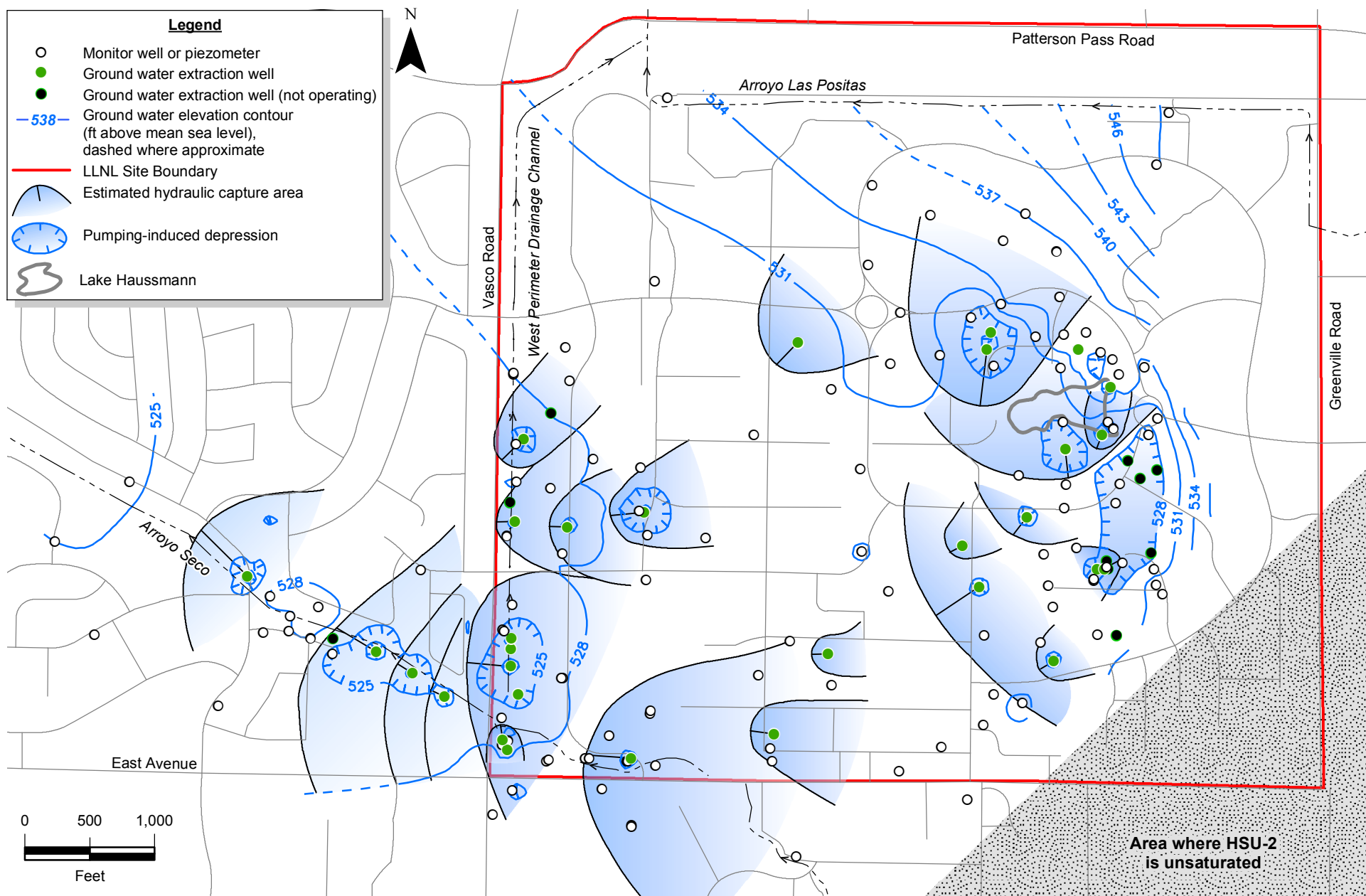


Figure 3. Ground water elevation contour map based on 161 wells completed within HSU-2 showing estimated hydraulic capture areas, LLNL and vicinity, fourth quarter 2012.

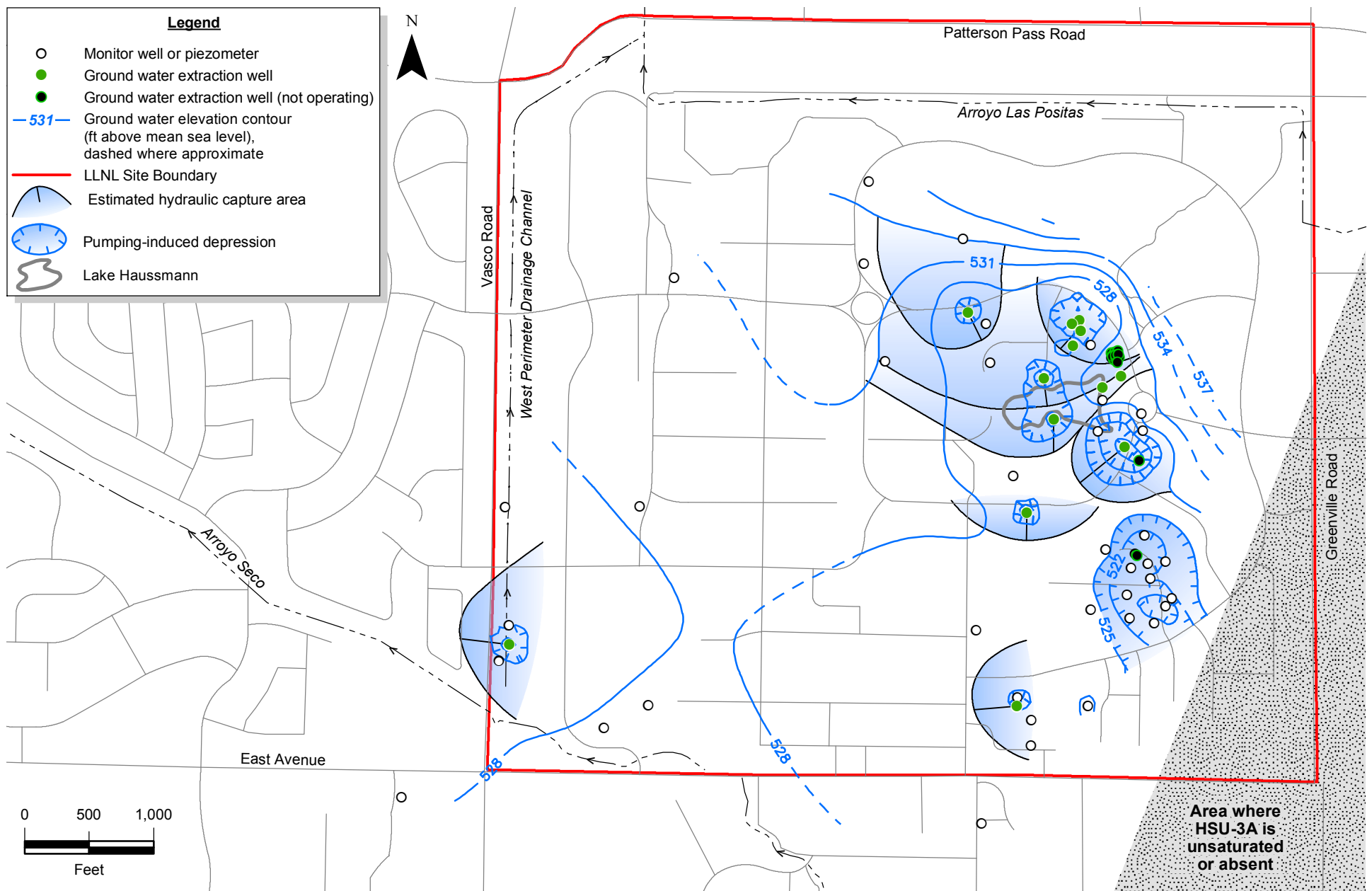


Figure 4. Ground water elevation contour map based on 66 wells completed within HSU-3A showing estimated hydraulic capture areas, LLNL and vicinity, fourth quarter 2012.

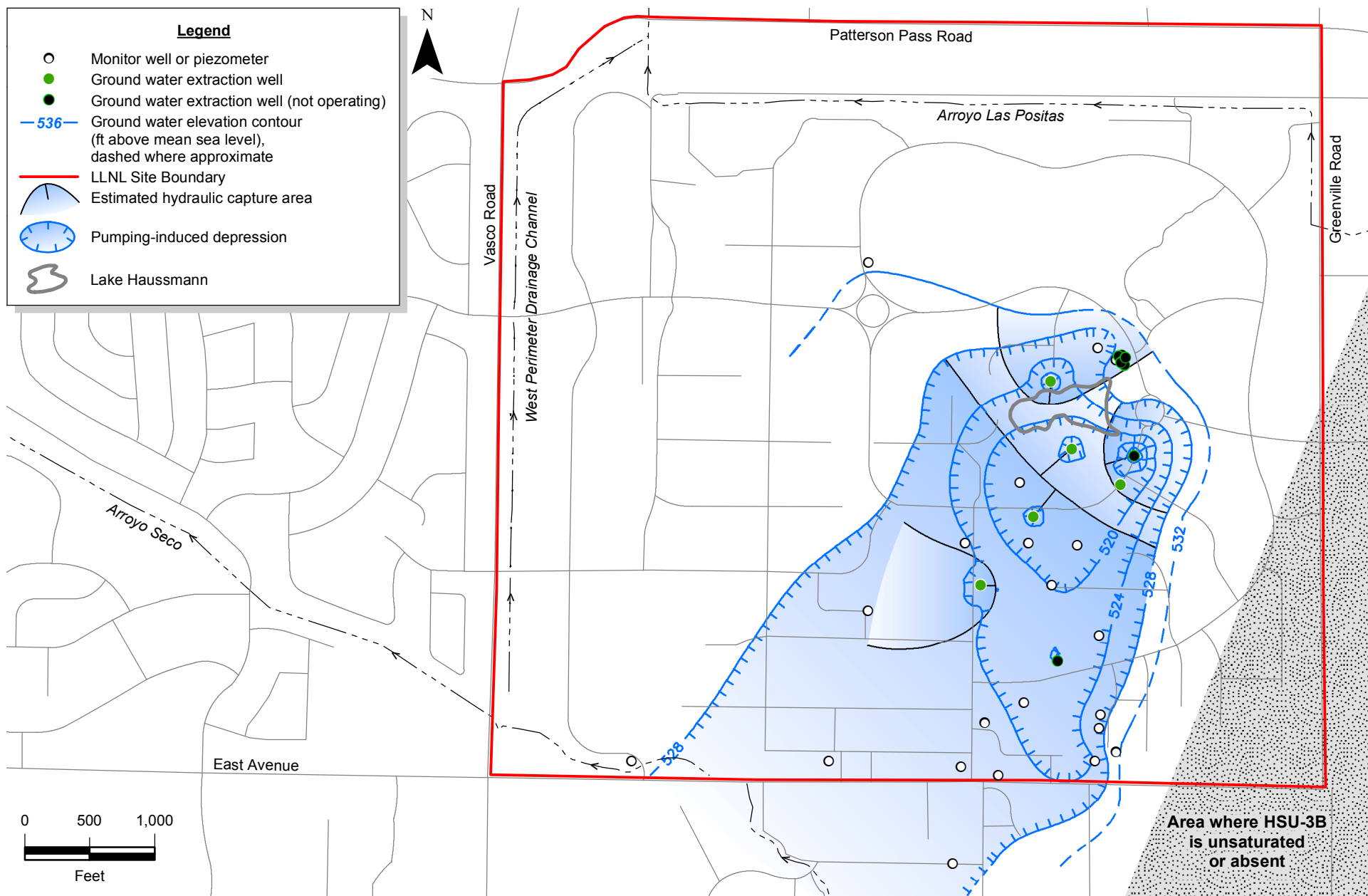


Figure 5. Ground water elevation contour map based on 31 wells completed within HSU-3B showing estimated hydraulic capture areas, LLNL and vicinity, fourth quarter 2012.

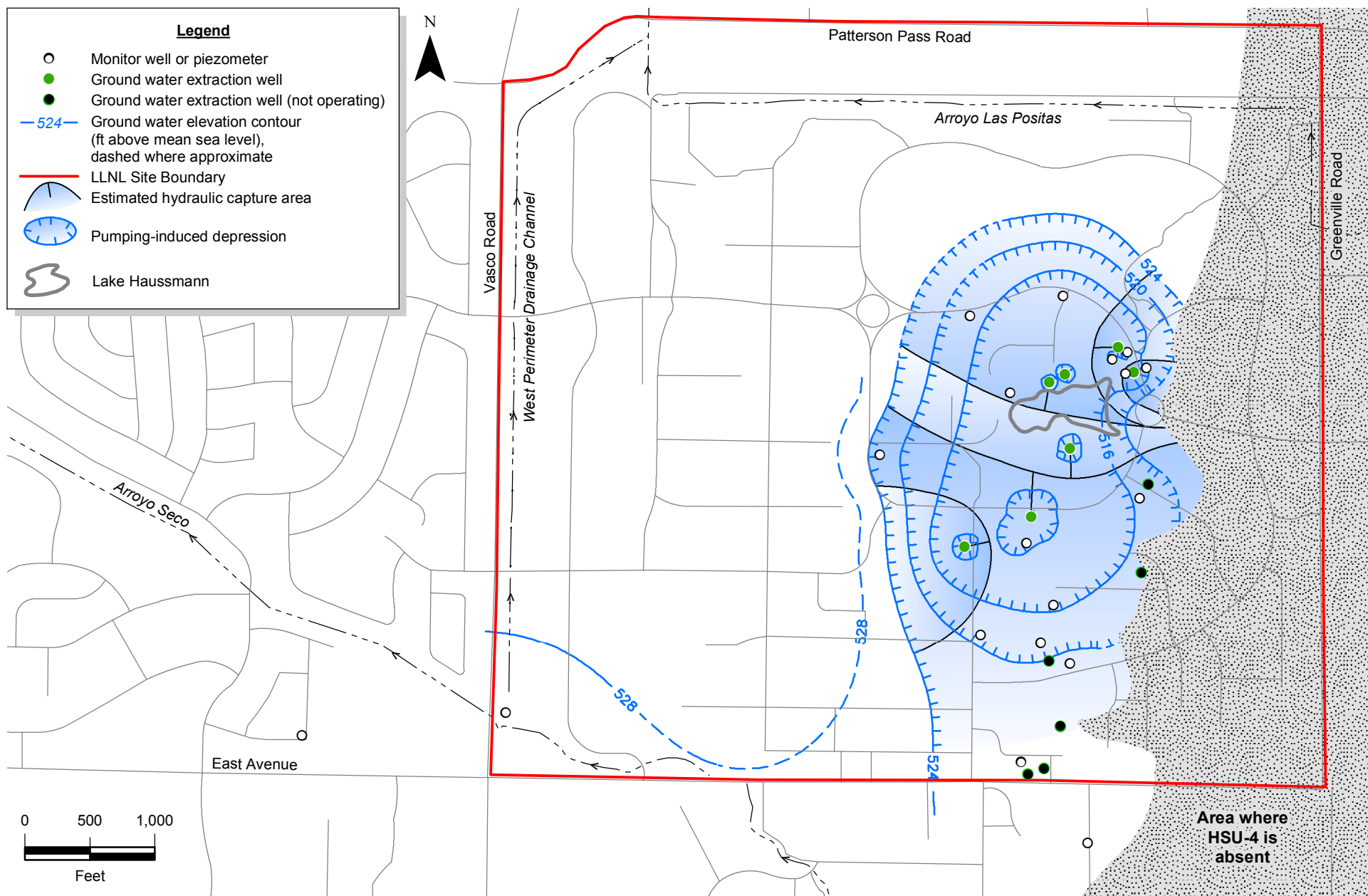


Figure 6. Ground water elevation contour map based on 31 wells completed within HSU-4 showing estimated hydraulic capture areas, LLNL and vicinity, fourth quarter 2012.

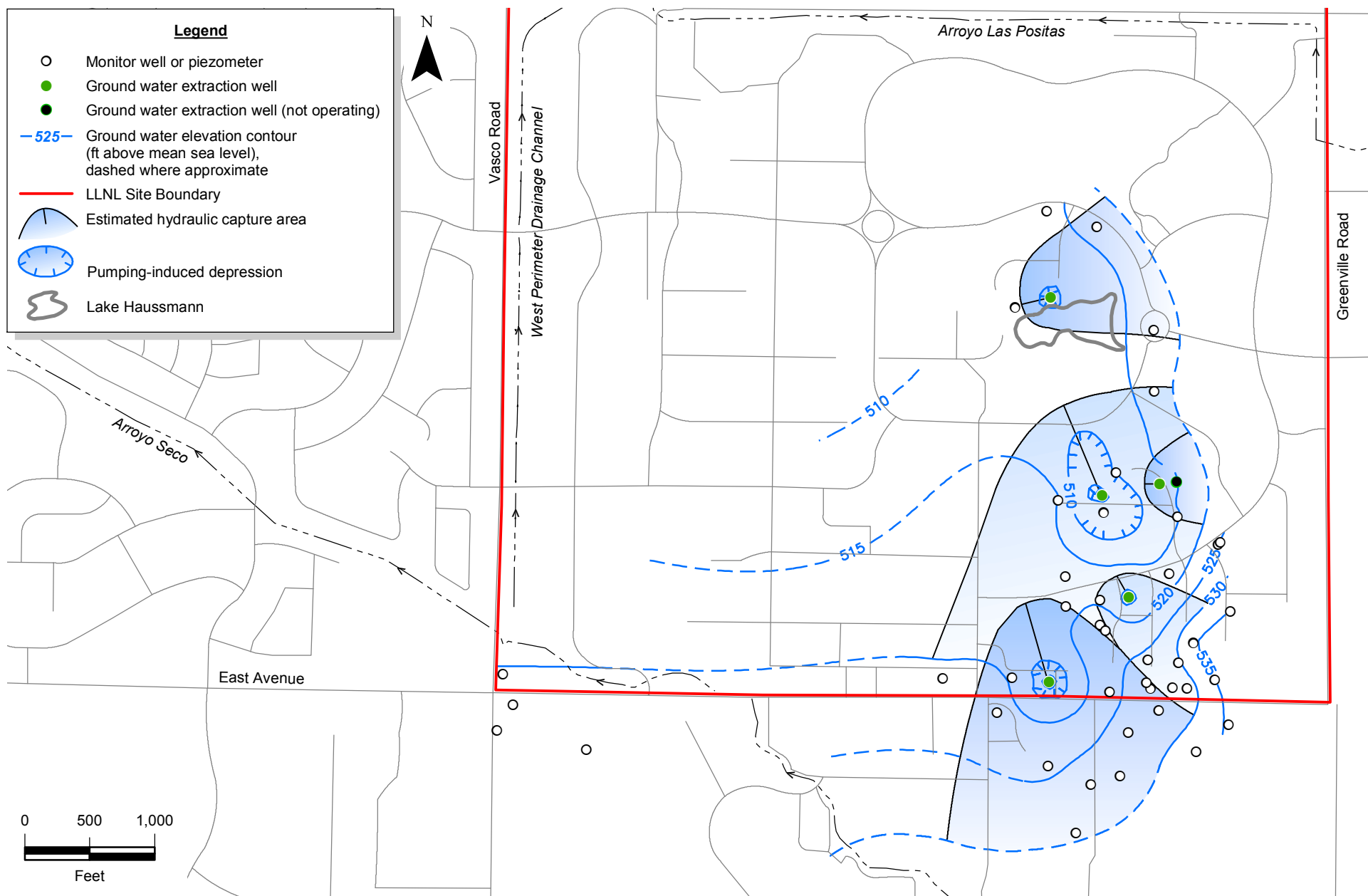


Figure 7. Ground water elevation contour map based on 41 wells completed within HSU-5 showing estimated hydraulic capture areas, LLNL and vicinity, fourth quarter 2012.